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ABSTRACT

The purpose of this study was to test the effectiveness of an inservice staff development program in promoting change in patterns of teacher-child interaction. The program used (1) the combined techniques of systematic analysis of teaching behavior with the Behavior Ratings and Analysis of Communication in Education (BRACE) observation system, (2) self-confrontation through videotapes, and (3) joint conferencing between a teacher and a person acting in a staff development capacity to produce changes in adult-child communication which are related to the goals of developing thinking, self-activated learners. Fifteen subjects participated in the study. The treatment was effective in producing increases in the amount of adult communication dealing with logic and with communication which supports learning (p less than .059). The treatment was also effective in producing increases in the amount of child initiated communication (p less than .059), of child communication dealing with logic (p less then .059), and of the total volume of child communication. In addition, the participants perceived the program as helpful and worthwhile. The results of this study suggest that this type of staff development and program to change adult-child patterns of interaction should be continued and implemented on a wider basis. (Sixteen appendixes are attached which include letters, questionnaires, and other material relevant to the study.) (Author)

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TRAINING IN INTERACTION ANALYSIS AS A MEANS OF STAFF DEVELOPMENT FOR MASTER TEACHERS, CLASSROOM TEACHERS AND PARAPROFESSIONALS

by

Joseph H. Williams

Submitted in partial fulfillment of the
requirements for the degree of Doctor of Education
Nova University

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Maxi II Report
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CHAPTER I

TRAINING IN INTERACTION ANALYSIS AS A MEANS OF STAFF DEVELOPMENT FOR MASTER TEACHERS, CLASSROOM TEACHERS AND PARAPROFESSIONALS

CHAPTER I

INTRODUCTION

Purpose of Practicum

The purpose of this practicum is to test the effectiveness of an in-service staff development program in promoting change in patterns of teacher-child interaction. The program attempts to achieve change through the combined techniques of systematic analysis of teaching behavior with the BRACE observation system; self-confrontation through videotape; and joint conferencing between a teacher and a person acting in a staff development capacity. Change will be sought in the following areas:

Adult Communication

Communication dealing with logic, imagination or affect will increase relative to communication dealing with facts and information

More supportive communication (accepting, extending, recognizing, stimulating self-correction) will increase relative to less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

Child Communication

Self-initiated communication (initiating or asking) will increase relative to outer-directed communication (responding)

Communication dealing with logic, imagination or affect will increase relative to communication dealing with facts and information

The volume of child communication will increase relative to the volume of adult communication

Behavior Setting

Student involvement will increase

Peer interaction will become a part of learning activities

Personalization of the curriculum will be present (e.g., relating curriculum to student's out-of-school experiences; working on real-life problems)

Identification of the Problem

The need to improve teaching is axiomatic. However, the effort to improve the quality of education is especially critical in large city school systems, like Duval County, where large numbers of minority children and children from low-income areas are experiencing failure in school.

As supervisor of the Career Opportunities Program in Jacksonville, this practitioner has become sensitized to the need to provide effective strategies to help teachers improve their communication and interaction skills which are at the heart of teaching.

The Career Opportunities Program, which began in 1970, was designed to improve the education of low income children by employing low income community residents and Vietnam veterans as education aides or auxiliaries in poverty area schools while they train toward eventual teacher certification.

The Duval County Career Opportunities Program employed 150 paraprofessionals in seventy four schools as classroom teacher assistants at the beginning of the 1970-71 school year. As of this date, approximately 100 have graduated with a baccalaureate degree with full teacher certification and are employed as classroom teachers in the local school system. Many of these are employed in the critical areas of Special Education, Industrial Arts, and Early Childhood Education.

As this practitioner made routine school site visits to classrooms where COP aides were assigned he saw a preponderance of lecturing and little opportunity for creative thinking or student initiative. It soon became apparent that teachers needed to be more aware of their teaching behavior and that interaction between teachers, paraprofessionals and pupils needed to be greatly improved.

Fortunately the Jacksonville COP project was selected as one of ten of the 132 projects in the nation to participate in a project conducted by Bank Street College of Education, New York City, New York in 1972.

A teacher-paraprofessional-principal team and this practitioner as supervisor of COP were selected to participate in a one week extensive training program at Bank Street College in communication analysis.

The purposes of the Bank Street project were as follows:

1. To collect data about the flow and type of verbal communication between children and adults in selected Career Opportunities Program classrooms -- in other words: "Who speaks to whom about what."

2. To assess the impact of the Career Opportunities Program upon the learning-teaching process and the people involved--both adults and children.

3. To provide feedback as a mechanism for self-analysis and for staff development by trainers in both school and college.

4. To develop a new and challenging role for paraprofessionals, with the possibility of an additional role, i.e.: trainer of other paraprofessionals in the newly acquired skills.

The training provided by Bank Street College to the selected teams dealt with systematic analysis of learning situations whereby certain variables are coded live by trained observers and their frequency recorded. Unlike most systems, however, the ACE instrument (Analysis of Communication in Education) records paraprofessionals as well as teachers and pupils.

The coding system covered:

1. The Mode of communication, such as Expressing One's Self voluntarily, Asking and Responding, indicated by the Major Categories.

2. The Substance of communication, such as Information, Thoughts, Ideas, and Feelings, indicated by the Minor Categories.

3. The Flow of communication, i.e.: Who speaks to whom, which reveals the extent of individualized teaching by adults and of peer communication among children.

The trained teams returned to their own communities and collected data in selected COP classrooms. The data were analyzed at Bank Street College and the findings published in the Winter, 1972 issue of the

Journal of Research and Development in Education, published by the University of Georgia.

In the sample of eight classrooms in Jacksonville, the data revealed a heavy emphasis on adults asking for rote information and children responding with same. There was little high level cognition (logical and/or imaginative thinking) or affect (31% combined) and there was little self-initiated child talk (35). Rather, there was heavy reliance on "drill" as a teaching technique. Of the ten communities in the Bowman Study, Jacksonville ranked second lowest in the frequency of self-initiated talk, and third lowest in the frequency of high level cognition.

These findings confirmed this practitioner's previous beliefs that adult-child communication needed to be greatly improved in the many classrooms he had observed. Therefore, this practitioner chose this particular problem for a Maxi II practicum study. The problem is basic: how to bring about changes in adult-child communication patterns which are more related to the goals of developing thinking, self-activated learners. The need and desirability of increasing the frequency of logical and imaginative thinking and self-initiated child talk is shared by the other educators involved in the study (Gugel, Davis, Brewington; personal communication).

Conceptualized Solution

Given the need to improve adult-child communication it was fortuitous that this practitioner was invited to participate in

another training session at Bank Street College to study a further refinement of the original ACE instrument. This modified instrument, entitled BRACE (Behavior Ratings and Analysis of Communication in Education) seemed particularly well suited for identifying communication patterns. Bank Street College has used the BRACE system for a variety of purposes, including program assessment and staff development. In its use as a staff development tool, the BRACE instrument provides teachers with an objective picture of classroom verbal interaction as a basis for defining desired areas of change in adult-child communication patterns.

The staff development form of the instrument delineates categories which are considered supportive of learning (these include accepting encouraging; extending, clarifying; recognizing specific accomplishments; stimulating self-correction) as well as categories which are considered less supportive of learning (these include perfunctory acknowledgement without interest or encouragement; generalized or meaningless praise; correcting misinformation; belittling or ego deflating comments). Other categories identify comments in terms of their substance (these include logical and/or imaginative thought processes; basic information or facts; affective comments, internal feelings).

A number of categories are also provided to describe the characteristics of the educational setting in terms of the adult's role, the content of the activity, the involvement of the children, etc. (See Appendix I for a copy of the Staff Development form). The more complex

research form of the BRACE instrument is presented in Appendix along with its manual.

At the time of the Bank Street workshops there was almost no application of objective systems for self-analysis or the analysis of children's and adult's verbal communication in the Jacksonville schools. As a practicum project this practitioner decided to implement a staff development program which would attempt to improve adult-child communication through the use of the BRACE system. A four step program was designed to achieve this purpose:

1. Providing training workshops in the use of BRACE for master teachers, classroom teachers, and paraprofessionals.

2. Videotaping teacher-child interaction in selected classrooms.

3. Providing a staff development conference with a Bank Street consultant, this practitioner and selected master teachers and classroom teachers. These conferences would focus on analyzing and interpreting the BRACE data and defining targets for change in adult-child communication patterns.

4. Post videotaping teacher-child interaction in the same classrooms to assess if the desired changes occurred.

The efforts of this staff development experience will be assessed through analyzing and comparing pre and post videotapes of adult-child interaction with the BRACE system.

The results of the pre-post comparison, along with the opinions of the participants regarding the value of training in the BRACE system will be used to assess the hypotheses that BRACE can be used to promote desired changes in adult-child communication patterns.

Chapter II presents a review of related literature, citing studies which support the effectiveness of interaction analysis systems as tools for creating self awareness and stimulating change in teaching behavior. The use of videotape is also cited in several studies as a powerful tool for self-confrontation and creating self-awareness.

Chapter III reports the Research Design, Sampling, and Data Analysis Procedures used in the study as well as a description of the various activities which were carried out for the practicum.

Chapter IV presents case studies of the fifteen classrooms selected for the study. Summary Data reporting the effectiveness of the staff development experience in relation to each hypothesis is also presented.

Chapter V discusses the conclusions and implications which emerged from this practicum.

CHAPTER II

CHAPTER II

REVIEW OF RELATED LITERATURE

There seems to be general agreement among educators that teaching needs considerable improvement. Why with all the effort put into the preparation of teachers, and into teachers' individual efforts to improve their work with youngsters, is not teaching far more effective than it is? Researchers engaged in classroom observation find that teachers are too controlling, restrictive and inhibiting.

Studies by Hughes (1959) and others have discovered that typical American teacher behavior is telling, and that typical American student behavior is listening. According to Flanders (1970) teachers tend to do approximately 70% of the talking. Certainly teachers desire to involve pupils in a more creative way in the teaching process and desire to have pupils participate more and ask more imaginative and thoughtful questions, and to engage in more creative thinking. Why is it that many teachers continue to teach as they have been taught themselves as youngsters?

Numerous teachers whose teaching style is that of the lecturer teach this way not because of preference, but perforce; they know no other way of accomplishing the task. For these teachers it is not merely using the lecture as the easy way out, but it is rather, that they do not possess the skills and training required to stimulate active and thought-challenging discussion, and interaction, and to sustain and guide its course into fruitful channels.

In addition, many teachers are not analytic or reflective about their teaching. They do not change because they lack the awareness which needs to precede such change.

In 1969 a study by Rogers related "availability to awareness" and "openness to experience" as the essential components in a persons ability to develop and to change (p. 284). A study by Hughes in 1963 reveals that "The teacher who is aware of his behavior is more likely to change"(p. 35). Hughes continued that it is this sort of professional ability that is necessary if a more meaningful reality and learning situation is to be provided for students (p. 35).

Withall reported in his findings (1972) that many teachers simply are unaware of what they need to do to change their behavior. Some educational communities, in an attempt to help solve this problem, have created training programs in awareness in order to help teachers increase their awareness in reaching their goals of changing their behaviors (Ober et. al., 1971).

Many of these training programs in awareness focus on an analysis of teacher-child verbal interaction because of the central role of language in the instructional process.

Observation of what takes place in an elementary and secondary school reveals that classroom activities are carried on in large part by means of verbal interaction between students and teachers. There are only a few classroom activities that can be carried out without the use of language.

The verbal actions typical of classroom discussion are of such a nature that they invite, encourage, and occasionally demand attention or an active response on the part of person addressed. Questions are asked to be answered; assignments are made to be carried out; explanations are made to be understood. Verbal activities involved in teaching clearly are reciprocal affairs involving both teachers and students. Therefore, the role played by the teacher can be described only in relation to the role played by students. If the activities of the teachers in the classroom are observed and recorded without analyzing the activities of the students, it would give a distorted and incomplete view of the teaching process.

Since talk is such a vital part of teaching, and since the teachers' verbal behavior influences pupils' verbal behavior, it follows that teacher talk is tremendously important in education.

Recent history of both educational research and teacher training has seen the use of some new and innovative techniques and designs. One of the newer approaches has been the use of descriptive category systems as a tool for collecting specific, relatively objective data of teacher and pupil behaviors as they are manifested in classroom settings.

Many classroom teachers are familiar with some of the observation instruments designed to "rate" them as teachers. Some have had experience, for example, with rating instruments as these are often used for purposes of annual faculty evaluations. Rating scales tend to be loosely defined, high influence instruments whose users may not be adequately trained to collect data.

The use of such instruments by subjective but influential observers has aroused legitimate concern that data so obtained lacks sufficient objectivity to be of value but, nevertheless, carries adequate professional weight to be personally threatening to the classroom teacher. Ambigious rating scales containing numerous high inference categories that cannot be used reliably are not to be confused with systematic observation instruments.

Systematic observation instruments are also referred to as category systems. Category systems enable those trained in their use to collect objective data and to study instructional behavior analytically. Most category instruments are designed to be descriptive, non-evaluative, and objective. (Medley and Mitzel, 1963; Simon and Boyer, 1970; Bowman and Mayer, 1973).

Historically, those who have constructed observation instruments have sought to devise means for collecting empirical data descriptive of what occurs in the classroom (Rosenshine and Furst, 1973; Medley and Mitzel, 1963; Bowman and Mayer, 1973).

Developers of interaction observation systems have used predetermined and carefully defined categories of verbal and non-verbal behaviors to describe teachers and student verbal behaviors. Since the data collected are descriptive of classroom behavior, what has been observed may be reconstructed and analyzed; hence these systems are often referred to as "mirrors" of behavior. The descriptive power of the data collected is determined by the adequacy and number of categories incorporated into the observation system; by the ability and skill of

observers who collect the data; and by the conceptual tools available for reconstructing, interpreting and analyzing the data.

Interaction analysis observation instruments are designed with the intent to collect empirical data systematically. The speed and accuracy with which an observer can collect the data and the degree to which the meaning of categories can be communicated are critical factors. Category systems include precisely defined categories. Such precision reduces the need for the observer or coder to infer which category to assign to classroom events.

Once the observer has learned to use the interaction analysis system and its instrument, the definitions enable the observer to communicate with the classroom teacher. Thus, the observer can provide tne classroom teacher with reality data which can then be interpreted in order to make decisions about teacher activities and behavior and student interaction in the classroom.

The basic function of descriptive systems is to collect accurate and objective data for subsquent analysis. This analysis should be helpful to the classroom teacher in order to enable her to use the data for self awareness. Those who have constructed and designed the various interaction analysis and/or category systems have recommended them to be used in terms of their descriptive and analytical power.

A number of studies have reported that experience in interaction analysis has been successful in developing awareness and effecting change in teacher behavior (Hirsh and Yarger, 1972; Rosenfeld, 1974).

A study (1966) by Amidon and Hunter indicates supportive evidence that the use of descriptive data on teachers behavior is most helpful in bringing about desired changes in behavior.

Interaction analysis systems can be learned by classroom teachers, supervisors, and other educational resource personnel. Mastering a system entails learning to understand the categories of a system, coding reliably and understanding and interpreting the data.

Developers of observation instruments have consistently considered objective data collection as a tool for the analysis of student-teacher interaction. Alternative objectives, conflicting convictions, and competing beliefs as to what variables are the most critical to student learning have led to the design of a divergent collection of instruments. Seventy-nine of these systems are explained in Mirrors of Behavior (Simon and Boyer, 1967, 1970).

Withall, 1951, Amidon and Hough, 1967 emphasize those factors associated with classroom climate in their instruments. Others stress indirect and direct categories of teacher behaviors (Flanders, 1960) and student and teacher cognitive behaviors. Therefore, a number of systems are available for collecting behaviors and teacher-student interactions.

An interaction analysis system is an excellent tool to be used by supervisors, master teachers, team leaders and other persons involved in education in a helping relationship. Until the present time, as administrators and supervisors we have been taught that when entering the classroom, we should "make ourselves scarce". Nothing should be done to increase the anxiety of the teacher. Consequently, we usually sit in the back of the classroom and record a note or two occasionally based on a subjective appraisal. Later we meet with the teacher to discuss our observations.

Since the observer does not have a record of what actually took place in the classroom nor a time line to use to reconstruct the observed lesson, the teacher's perception and the observer's perception are usually quite different and little is gained from such a conference. In fact, some investigators hold that even the use of objective data is not always convincing to a teacher. They suggest supplementing the analytic scheme with a videotape. Withall (1972) writes:

> ...when unevaluated feedback has been given to observees in the light of the stated observation and guidelines, they have flatly rejected the data until confronted with further objective evidence on a videotape. This unawareness or nonrecollection of their own behaviors can explain some of the shock exhibited by both new and veteran teachers as they view a film record of their teaching. Apparently, most of them never consciously monitor their professional acts; they seem to be unaware of what they are doing and unable to explain why they utilize the behaviors in which they engage /p. 332/.

Modern technology has enabled us to utilize this more effective way of observing and supervising teachers.. Teachers can be trained to use a video tape system, they can have camera set up in their classroom which can pick up a maximum amount of information. The camera can be set up with or without an operator and later the teacher can observe the tape at her leisure in order to determine effectiveness of teaching and interaction with students.

In the current practicum the technique of interaction analysis with Bank Street's BRACE instrument is being combined with the use of videotape to promote teacher awareness of and change in patterns of adult-child communication in the classroom.

CHAPTER III

CHAPTER III

PRACTICUM REPORT: RESEARCH DESIGN AND PROCEDURES

Objective

The objective of this practicum was to design a staff development program that would provide an opportunity for master teachers, classroom teachers, and paraprofessionals to analyze adult-child communication in order to bring about an increase in the frequency of logical and imaginative thinking and self-initiated child talk. The BRACE interaction analysis system, developed at Bank Street College, would be used to analyze adult-child communication and behavior.

Procedures

Permission was granted from the Director of Practicums and Case Studies, Nova University in April, 1974 to implement a staff development program using the BRACE observation system (Appendix A). Arrangements were then made with Bank Street College to provide additional training for the original core team and to provide needed consultation and assistance in the execution of the practicum (Appendix B, C, D, and E).

The BRACE Workshops

Step 1 of the practicum design was to provide BRACE workshops for master teachers, classroom teachers and paraprofessionals.

Although only a selected sample of these participants would participate in the in-depth staff development study, it was felt that training in the use of the BRACE analysis would be a valuable experience in and of itself. Four groups received in-service training in the use of the BRACE system. Sixty persons, ranging in grades from kindergarten through senior high school level, participated in the workshops. The sixty persons are as follows:

a. 1 Elementary School Principal
b. 1 Supervisor
c. 3 Coordinators
d. 32 Master Teachers (elementary schools, junior high schools senior high schools)
e. 25 Elementary School Classroom Teachers

The core team assisted by Bank Street College staff trainers jointly conducted a total of six training sessions to the four selected groups from November 1974 to May 9, 1975.

The training sessions included the following:

1. Background, history of development and utilization of the long and short forms of the BRACE Interaction Analysis System.

2. Viewing of several film episodes of classroom situations.

3. Familiarization with the BRACE instrument in a large group setting which involved coding of film episodes

4. Definitions and examples of categories.

5. Small group work sessions in which teachers were provided maximum time for drill and discussion while coding after viewing film episodes.

6. Discussion periods to allow feedback as to how the instrument might be utilized in their classrooms for staff development and to improve teacher-child communication patterns of behavior.

7. Master teachers continued to code "live" in selected classrooms in their assigned schools.

A questionnaire was sent to a sample of these participants to ascertain if they perceived the BRACE workshops as useful. The results of this questionnaire are presented in Chapter IV.

Selection of Subjects

Fifteen classrooms were selected for in-depth study. The scope of the staff development program, which included the pre and post videotaping and conferencing, made it impractical to obtain a larger sample.

Subjects for the study were selected from two different groups -- (1) classroom teachers from the John Love Elementary School and (2) master teachers from the Basic Skills Program. Four elementary school teachers were selected by the principal of the John Love School to participate in the study. The classrooms included a kindergarten, first, third and fourth grades.

Design of Study

The design of the study for the John Love Elementary School teachers was as follows:

(1) Pre-videotaping of the teacher in a typical or representative classroom activity.

(2) Conferencing with the classroom teacher, a Bank Street consultant, and this practitioner to analyze the videotape.

The procedure used was to watch the videotape and obtain general reactions from the teacher. Following this, the tape was rewound by the teacher so that selected segments of the tape could be coded with the BRACE system until a pattern of communication emerged.

These patterns were then related to the "Analysis of Goal Fulfillment Form" (Appendix F) which aided in the identification of target areas for change in communication patterns.

(3) Two additional classroom visits were made by Dr. Mayer and this practitioner with follow-up conferences to reinforce the goals set in the first staff development conference.

(4) Post-videotaping of the same classroom teacher in a comparable situation to ascertain if desired changes occurred.

(5) Filling out questionnaire regarding the staff development program (see Appendix G).

The second group who participated in the practicum consisted of the eleven Basic Skills Master Teachers. Five were Language Arts master teachers and six were Math master teachers. Each master teacher worked in a different school, some of which were elementary schools and others secondary schools. Each master teacher selected one classroom teacher from those with whom he or she worked to participate in the study of teacher change. The purpose and design of the program for the master teachers differed somewhat from that described for the participants of

the John Love Elementary School. The main objective for the master teachers was to augment their staff development skills in analyzing teacher behavior and providing clinical supervision. The design of the program for this group was as follows:

(1) Group training in the use of the BRACE interaction analysis system.

(2) Pre-videotaping a classroom teacher selected by the master teacher.

(3) Meeting with this practitioner and Dr. Mayer to "model" the staff development conference for the master teacher. During this "modeling" conference, the videotape of the classroom teacher selected by the master teacher was jointly analyzed in relation to the BRACE categories.

(4) Group meeting of language arts master teachers and math teachers to review each other's videotapes in preparation for the one-to-one conferences with their classroom teachers.

(5) One-to-one conferencing between the master teacher and the classroom teacher.

(6) Group meeting of all the master teachers, this practitioner and Dr. Mayer to get feedback on the one-to-one conferences. This meeting reviewed and discussed the strategies used by the master teachers and the reactions of the various classroom teachers to the staff development conference.

(7) Post-videotaping of the same classroom teachers in a comparable situation to ascertain if desired changes occurred.

(8) Filling out questionnaires regarding the staff development project (see Appendix H).

Analysis of the Data

A person was employed to code all of the videotapes collected using the BRACE staff development form. This coding was necessary since the on-the-spot coding during the staff development conferences covered only a portion of the adult-child communication recorded on the videotape.

Training and Reliability of Coder

The BRACE coder was trained intensively by two members of the core team. An estimate of inter-observer reliability was obtained by having a core team member simultaneously code a videotape with the coder. Percent of agreement was calculated for the FLOW categories (90%), the combined SUPPORT categories (82%), and the SUBSTANCE categories (85%). Inter-observer scores of 80% or better are considered adequate for this type of system. Spot checks were also made by two of the core team members throughout the coding of the videotapes to insure the accuracy of the coding.

Coding Procedures

The BRACE coder was instructed to code all audible communication recorded on the videotapes. The average length of the videotape was 15 minutes. The shortest videotape sample was 8 minutes and the

longest 31 minutes. The average number of teacher communication units was 245 per videotape with the smallest sample 51 units and the largest 548 units. The average number of child communication units was 91 units with the smallest sample 13 units and the largest sample 169 units.

Statistical Tests

A test of statistical significane was performed for each hypothesis for each teacher using the chi-square test of homogeneity at the $p < .05$ level. When cell entries were below 5, Fisher's Exact Test was performed instead of the chi-square test.

In order to statistically test the overall effect of the staff development program, a sign test at the $p < .059$ level was performed for each hypothesis. When applied to the total sample of fifteen subjects, the sign test registers a statistically significant effect when in 11 or more of the 15 participants shows an increase.

CHAPTER IV

CHAPTER IV

CASE STUDIES AND FINDINGS

This chapter presents a case study of each of the fifteen classroom teachers who participated in the study. Although aggregate scores and summary charts are helpful for determining the overall effectiveness of the staff development program, the case study approach helps to point out the need to view change in teacher behavior on an individual basis. Each teacher has somewhat different strengths and needs and was able to improve in different ways.

The teachers from the John Love Elementary School are discussed in the first four case studies. In addition to the staff development conference which followed the first videotaping session, each teacher was visited on two other occasions prior to the post videotaping. These visits, which included follow-up conferencing, were made jointly by Dr. Mayer and myself and were used to reinforce the goals set in the first staff development conference.

Case studies No. 5 through No. 9 discuss the classroom teachers selected by the Language Arts master teachers. Case studies No. 10 through No. 15 discuss the classroom teachers selected by the Math master teachers.

CASE STUDY: NO 1: MRS. A

Mrs. A represents one of the more dramatic successes of this staff development program. Mrs. A is a first grade teacher with a number of years of experience who is highly motivated to do well. Despite her experience and motivation, her classroom was functioning poorly at the time of the first videotape.

Pre-Videotape

Mrs. A was videotaped which she demonstrated how to write the letter "K" to the whole class. She had difficulty keeping the children attentive and in their seats. She asked students to think up words that began with "K". Then she played a record which was keyed to a chart of words and pictures. The children recited the words along with the record. Student involvement was only moderate.

Staff Development Conference

During the staff development conference the analysis of the videotape with the BRACE categories revealed a low incidence of goal-directed communication patterns such as self-initiated child communication; adult support of learning; and use of imagination or logic (see Table I, Case Study 1). Dr. Mayer, Mrs. A, and this practitioner discussed the need to increase the amount of goal-directed communication. The discussion also focused on identifying other ways of working with children and organizing curriculum activities, including the use of small group activities and activities involving manipulative experiences to sustain interest and attention. Mrs. A seemed very anxious to pick up on these suggestions.

Post-Videotape

Mrs. A was videotaped working with a small group using word games and reading stories. The quality of adult-child communication had improved greatly. Statistically significant increases occurred with respect to the amount of adult support; the amount of child initiated communication; and the volume of child communication (see Table I, Case Study No. 1). Increases were also recorded in the amount of adult and child communication dealing with logic, imagination, and affect. In addition, there were positive changes in the degree of student involvement, in the personalization of the curriculum.

In a questionnaire about the staff development program, Mrs. A wrote:

> I found the project useful. By watching the TV tapings I became aware of communication patterns. Due to this awareness, I changed to teaching in smaller groups which provided a greater interaction with children...The one-to-one conferencing was the most valuable of all. Dr. Mayer's ideas were immensely helpful and she knew how to correct many problems.

TABLE I

BRACE DATA: CASE STUDY No. 1

TEACHER Mrs. A GRADE 1 SUBJECT Language Arts

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Less Goal-Related Categories
Hypothesis: Post < Pre

Adult Variables

Communication dealing with logic, imagination or affect

as compared with

Communication dealing with information or facts

PRE [redacted] 12% (3)

POST [redacted] 21% (6)

RESULT: POST > PRE

PRE [redacted] 88% (23)

POST [redacted] 79% (22)

RESULT: POST < PRE

More supportive communication (accepting, extending, recognizing specific accomplichments, stimulating self-correction)

as compared with

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

PRE [redacted] 49% (17)

POST [redacted] 83% (30)

RESULT: POST > PRE ($p < .05$)

PRE [redacted] 51% (18)

POST [redacted] 17% (6)

RESULT: POST < PRE ($p < .05$)

TEACHER Mrs. A GRADE 1 SUBJECT Language Arts

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Child Variables

as compared with

Self-initiated communication (initiating or asking)

PRE [redacted] 33% (11)

POST [redacted] 68% (41)

RESULT: POST > PRE ($p < .05$)

Communication dealing with logic, imagination or affect

PRE [redacted] 42% (14)

POST [redacted] 62% (37)

RESULT: POST > PRE

Proportion of Child Communication

PRE [redacted] 21% (35)

POST [redacted] 30% (66)

RESULT: POST > PRE ($p < .05$)

Less Goal-Related Categories
Hypothesis: Post < Pre

Child Variables

as compared with

Outer-directed communication (responding)

PRE [redacted] 67% (22)

POST [redacted] 32% (19)

RESULT: POST < PRE ($p < .05$)

Communication dealing with information or facts

PRE [redacted] 58% (19)

POST [redacted] 38% (23)

RESULT: POST < PRE

Volume of Communication

as compared with

Proportion of Adult Communication

PRE [redacted] 79% (133)

POST [redacted] 70% (151)

RESULT: POST < PRE ($p < .05$)

TEACHER Mrs. A GRADE 1 SUBJECT Language Arts

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Below Average POST Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST Yes

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST Yes

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

CASE STUDY NO. 2: MRS. B

Mrs. B is a third grade teacher with three years of experience.

Pre-Videotape

In the first classroom visitation for videotaping, Mrs. B gave the class a traditional spelling test; children corrected each other's papers; there was little verbal communication other than teacher reciting the words, and no spontaneous conversation from students.

Staff Development Conference

Discussion centered around the "traditional" setting and approach and what alternative existed for improvement, i.e. what were the opportunities for students to express ideas? To engage in peer communication, etc. Goals for change were set with respect to personalize the curriculum activities in the classroom and to promote student-initiated talk and logical and imaginative thinking.

Post-Videotape

Mrs. B was observed in a small group language art activity. She showed developing skills in asking comprehensive questions (then what happened?) and logical and imaginative thinking (how do you think the gift got there?).

Statistically significant increase occurred with respect to adult and child communication dealing with logic and imagination, the amount of child-initiated communication and the volume of child communication relative to adult communication.

In a questionnaire about the staff development program, Mrs. B wrote:

> "Made me more aware of lines of communication in my classroom and how I need to improve... Dr. Mayer gave excellent feedback and suggestions."

TABLE I

BRACE DATA: CASE STUDY No. 2

TEACHER Mrs. B GRADE 3 SUBJECT Language Arts

30

41

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Less Goal-Related Categories
Hypothesis: Post < Pre

Adult Variables

as compared with

Communication dealing with logic, imagination or affect

PRE 23% (5)

POST 37% (34)

RESULT: POST > PRE

Communication dealing with information or facts

PRE 77% (17)

POST 63% (57)

RESULT: POST < PRE

as compared with

More supportive communication (accepting, extending, recognizing specific accomplichments, stimulating self-correction)

PRE 69% (9)

POST 58% (53)

RESULT: POST < PRE

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

PRE 31% (4)

POST 42% (39)

RESULT: POST > PRE

TEACHER Mrs. B GRADE 3 SUBJECT Language Arts

COMMUNICATION VARIABLES

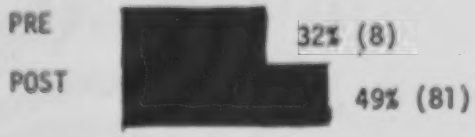
More Goal-Related Categories
Hypothesis: Post > Pre

Child Variables

as compared with

Less Goal-Related Categories
Hypothesis: Post < Pre

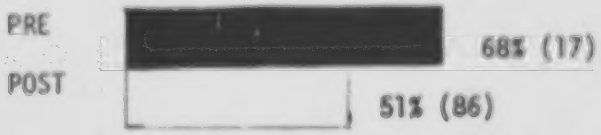
Self-initiated communication (initiating or asking)



RESULT: POST > PRE

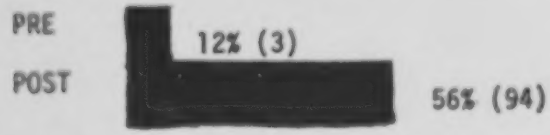
as compared with

Outer-directed communication (responding)



RESULT: POST < PRE

Communication dealing with logic, imagination or affect



RESULT: POST > PRE ($p < .05$)

as compared with

Communication dealing with information or facts

RESULT: POST < PRE ($p < .05$)

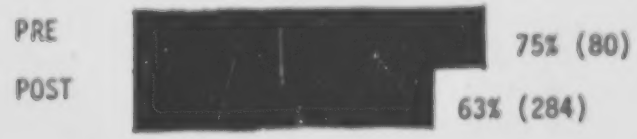
Volume of Communication

Proportion of Child Communication

RESULT: POST > PRE ($p < .05$)

as compared with

Proportion of Adult Communication



RESULT: POST < PRE ($p < .05$)

TEACHER Mrs. B GRADE 3 SUBJECT Language Arts

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Average POST Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE Yes POST Yes

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST No

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

CASE STUDY NO. 3: MISS C

Miss C is a young, attractive first year kindergarten teacher.

Pre-Videotape

Students were called upon to give details of a dream which they had previously experienced. Miss C asked questions and encouraged the students to continue their explanations.

Staff Development Conference

The patterns of communication in this activity were all positively related to the communication goals posited for this study -- there was an emphasis on imaginative thoughts and feelings, accepting and extending children's ideas, personalization of the curriculum, etc. The staff development conference focused on identifying these positive qualities and discussing the educational goals they facilitate.

Post-Videotape

Miss C worked with a small group in math. She put problems on the board and then circulated among the children while they worked on them individually. As is readily apparent, the post-videotape situation was not at all comparable to the pre-videotape situation. Thus pre-post comparisons are spurious. As might be expected the math situation emphasized facts while the dream activity emphasized imaginative thinking; also the ratio of child to adult talk decreased rather than increased. Fortunately, this was the only case out of the fifteen teachers studied where comparability in the pre and post setting was not present.

Despite the pecularity of the data in this case, Miss C found the exposure to the BRACE instrument and the staff development conferencing valuable. She wrote that:

> "Just reading and discussing it (BRACE) clarified the positive and negative ways of teaching children." Miss C felt that Dr. Mayer was "very open and aware of the needs of the children as well as the teacher... she gives suggestions for improvement and works on how you, the individual teacher, might first try implementing them."

TABLE I

BRACE DATA: CASE STUDY No. 3

TEACHER Miss C GRADE K SUBJECT Pre: Discussion
Post: Math

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Less Goal-Related Categories
Hypothesis: Post < Pre

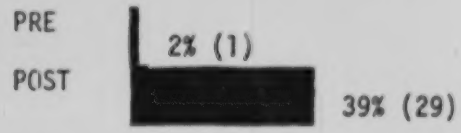
Adult Variables

Communication dealing with logic, imagination or affect

as compared with

Communication dealing with information or facts

RESULT: POST < PRE



RESULT: POST > PRE

More supportive communication (accepting, extending, recognizing specific accomplichments, stimulating self-correction)

as compared with

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

RESULT: POST > PRE

RESULT: POST < PRE

TEACHER Miss C GRADE K SUBJECT Pre: Discussion
Post: Math

COMMUNICATION VARIABLES

More Goal-Related Categories Hypothesis: Post > Pre		Less Goal-Related Categories Hypothesis: Post < Pre
Child Variables		
Self-initiated communication (initiating or asking)	as compared with	Outer-directed communication (responding)
PRE 15% (19) POST 33% (38)		PRE 85% (108) POST 67% (78)
RESULT: POST > PRE ($p < .05$)		RESULT: POST < PRE ($p < .05$)
Communication dealing with logic, imagination or affect	as compared with	Communication dealing with information or facts
PRE 98% (124) POST 27% (31)		PRE 2% (3) POST 73% (85)
RESULT: POST < PRE		RESULT: POST > PRE
Volume of Communication		
Proportion of Child Communication	as compared with	Proportion of Adult Communication
PRE 54% (164) POST 33% (117)		PRE 46% (138) POST 67% (237)
RESULT: POST < PRE		RESULT: POST > PRE

TEACHER Miss C GRADE K SUBJECT Pre: Discussion
Post: Math

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Average POST Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST Yes

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE Yes POST Yes

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

CASE STUDY NO. 4: MR. D

Mr. D is a first year fourth grade teacher.

Pre-Videotape

Lecture-discussion on cultural versus genetic traits based on MACOS (Man: A Course of Study). Mr. D used cultural and physical characteristics of people who live in different cultures, and used students as examples of how some of us are alike and also what differences we have.

Staff Development Conference

Mr. D talked most of time and often phrased high-level cognitive questions in yes-no form e.g. (Do you think a person who is used to eating with his hands could learn to use a fork?) (Choral: Yes!) Used humor to hold attention and create interest. When talking about similarities and differences between people: Henry is white and ugly and Gregory is black and ugly (peals of laughter!).

Mr. D has some very positive patterns, but also has areas where change would be desirable e.g. less lecturing, more student-initiation and participation (above yes-no response), fewer group responses and more "listening" of individual students to identify misconceptions, etc. Conversely, students should have an opportunity for elaborated comments. More need for extending and clarifying on teacher's part. Some of the positive indices are his use of humor, the way he relates social studies concepts to student's personal experience, and the stimulating (high level cognitive) content in lecture and questions.

The conference focused on an analysis of the lesson in terms of the indices listed in the BRACE goal-analysis form. The points mentioned above were outlined as target areas for change.

Post-Videotape

Small group working on science project - making rockets - close interaction with students and teacher "discovering" points of balance, air currents, etc.

This activity resulted in an increase in peer interaction, in student involvement and in student communication dealing with logic and imagination. There were statistically significant increases in adult communication dealing with logic and imagination and student-initiated communication. However, the goals of increasing adult support of learning and increasing the ratio of child to adult communication were not realized.

Mr. D felt the staff development program was valuable. He wrote that:

> Analysis of communication patterns with BRACE categories were appropriate and meaningful in my situation. Interpretations of patterns with Dr. Mayer and Mr. Williams were very helpful and I would like more of these. I felt the conference led to improvement in my class and in my interactions with my students.

TABLE I

BRACE DATA: CASE STUDY No. 4

TEACHER Mr. D GRADE 4 SUBJECT Social Studies - Science

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

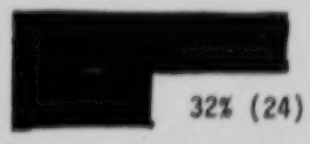
Less Goal-Related Categories
Hypothesis: Post < Pre

Adult Variables

Communication dealing with logic, imagination or affect

as compared with

Communication dealing with information or facts



RESULT: POST < PRE ($p < .05$)

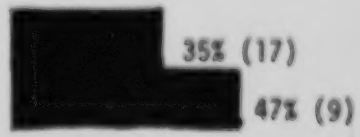
RESULT: POST > PRE ($p < .05$)

More supportive communication (accepting, extending, recognizing specific accomplichments, stimulating self-correction)

as compared with

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

RESULT: POST < PRE



RESULT: POST > PRE

TEACHER Mr. D GRADE 4 SUBJECT Social Studies - Science

41

COMMUNICATION VARIABLES

52

More Goal-Related Categories
Hypothesis: Post > Pre

Child Variables

as compared with

Self-initiated communication (initiating or asking)

PRE [redacted] 21% (15)

POST [redacted] 62% (56)

RESULT: POST > PRE ($p < .05$)

Communication dealing with logic, imagination or affect

PRE [redacted] 53% (38)

POST [redacted] 60% (55)

RESULT: POST > PRE

Volume of Communication

as compared with

Proportion of Child Communication

PRE [redacted] 32% (97)

POST [redacted] 29% (82)

RESULT: POST < PRE

Less Goal-Related Categories
Hypothesis: Post < Pre

as compared with

Outer-directed communication (responding)

PRE [redacted] 79% (57)

POST [redacted] 38% (35)

RESULT: POST < PRE ($p < .05$)

Communication dealing with information or facts

PRE [redacted] 47% (34)

POST [redacted] 40% (36)

RESULT: POST < PRE

Proportion of Adult Communication

PRE [redacted] 68% (202)

POST [redacted] 71% (200)

RESULT: POST > PRE

TEACHER Mr. D GRADE 4 SUBJECT Social Studies - Science

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Average POST Above Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST Yes

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE Yes POST Yes

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

CASE STUDY NO. 5: MRS. E

Mrs. E is an eighth grade language arts teacher. This is her second year of teaching.

Pre-Videotape

Mrs. E conducted a class lesson on sentence usage (pronouns and possession). Definitions and examples were recited. The teacher was primarily lecturing.

Staff Development Conference

This activity was characterized by an emphasis on facts and information rather than logic. It was a "textbook" lesson and was not personalized to help students see the functional value of learning these rules. Also, Mrs. E tended to acknowledge student responses in a perfunctory manner rather than accepting, encouraging, and praising individual responses. These issues were discussed with Mrs. E and identified as target areas of change. The master teacher reported that Mrs. E was "somewhat reluctant to discuss the taping during the conference."

Post-Videotape

Mrs. E broke the class down into small groups to discuss different writing terms. The groups used newspapers and periodicals to find and display examples.

Increases occurred in the personalization of the learning activity, in student involvement and peer communication and in the amount of adult and student communication dealing with logic and imagination. A statistically significant increase occurred with respect to the adult support

categories (accepting, extending, recogniaing specific accomplishments).

The master teacher reported that Mrs. E....

> "had consciously worked on all recommendations....There is no question as to the modification. The experience of the video-taping caused some discomfort for both of us, but the results justified it....The BRACE instrument has great potential."

TABLE I

BRACE DATA: CASE STUDY No. 5

TEACHER Mrs. E GRADE 8 SUBJECT Language Arts

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Less Goal-Related Categories
Hypothesis: Post < Pre

Adult Variables

Communication dealing with logic, imagination or affect

as compared with

Communication dealing with information or facts

PRE [redacted] 36% (30)

POST 49% (84)

RESULT: POST > PRE

PRE [redacted] 64% (54)

POST 51% (88)

RESULT: POST < PRE

More supportive communication (accepting, extending, recognizing specific accomplishments, stimulating self-correction)

as compared with

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

PRE [redacted] 37% (18)

POST 63% (104)

RESULT: POST > PRE ($p < .05$)

PRE [redacted] 63% (31)

POST 37% (60)

RESULT: POST < PRE ($p < .05$)

TEACHER Mrs. E GRADE 8 SUBJECT Language Arts

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Child Variables

Self-initiated communication (initiating or asking)

PRE [redacted] 49% (21)

POST [redacted] 42% (45)

RESULT: POST < PRE

as compared with

Less Goal-Related Categories
Hypothesis: Post < Pre

Outer-directed communication (responding)

PRE [redacted] 51% (22)

POST [redacted] 58% (63)

RESULT: POST > PRE

Communication dealing with logic, imagination or affect

PRE [redacted] 30% (13)

POST [redacted] 44% (48)

RESULT: POST > PRE

as compared with

Communication dealing with information or facts

PRE [redacted] 70% (30)

POST [redacted] 56% (60)

RESULT: POST < PRE

Volume of Communication

Proportion of Child Communication

PRE [redacted] 22% (40)

POST [redacted] 22% (109)

RESULT: POST = PRE

as compared with

Proportion of Adult Communication

PRE [redacted] 78% (141)

POST [redacted] 78% (395)

RESULT: POST = PRE

TEACHER Mrs. E GRADE 8 SUBJECT Language Arts

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Average POST Above Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST Yes

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST Yes

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

CASE STUDY NO. 6: MR. F

Mr. F is an eighth grade Language Arts teacher. This is his second year of teaching.

Pre-Videotape

Mr. F discussed the story Black Boy which the class had read. Mr. F's objective was to evaluate the student's understanding of the story.

Staff Development Conference

Mr. F's communication showed a high incidence of "extending and clarifying" and an emphasis on questions involving logic. However, there was little "recognition of specific accomplishment"; and almost no questions dealing with affective or imaginative thought processes. There was no peer communication and student involvement was only moderate. (The analysis of the conference between this practitioner, Dr. Mayer and Mr. F's master teacher is presented in Appendix J as an example of the commentaries which resulted in these meetings). During the one-to-one conference between Mr. F and his master teacher, Mr. F charted his own responses on the BRACE instrument. Both agreed that more involvement of students with peers and questoning in the affective or human interest domain would add a broader dimension to the learning experience.

Post-Videotape

Mr. F reviewed and discussed The Offspring with respect to the paradoxical situations and concepts it presented to its main character.

Mr. F used the background of the students to relate to the background of the story. Mr. F had students respond to each other in the form of roleplaying and sharing opinions.

Increases occurred with respect to the personalization of the activity, the amount of peer interaction and student involvement and the amount of student-initiated communication. Statistically significant increases occurred with respect to the amount of adult and child communication dealing with logic, imagination and affect and the amount of adult support of learning (extending, clarifying, recognizing specific accomplishments).

Both Mr. F and his master teacher were pleased with the results of the staff development program.

TABLE I

BRACE DATA: CASE STUDY No. 6

50

TEACHER Mr. F GRADE 8-9 SUBJECT Language Arts

COMMUNICATION VARIABLES

More Goal-Related Categories Hypothesis: Post > Pre		Less Goal-Related Categories Hypothesis: Post < Pre
Communication dealing with logic, imagination or affect	Adult Variables as compared with	Communication dealing with information or facts
PRE [redacted] 51% (66)		PRE [redacted] 49% (63)
POST [redacted] 65% (84)		POST [redacted] 35% (45)
RESULT: POST > PRE ($p < .05$)		RESULT: POST < PRE ($p < .05$)
More supportive communication (accepting, extending, recognizing specific accomplichments, stimulating self-correction)	as compared with	Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)
PRE [redacted] 83% (112)		PRE [redacted] 17% (23)
POST [redacted] 93% (141)		POST [redacted] 7% (10)
RESULT: POST > PRE ($p < .05$)		RESULT: POST < PRE ($p < .05$)

TEACHER Mr. F GRADE 8-9 SUBJECT Language Arts

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Child Variables

Self-initiated communication (initiating or asking)

PRE 5% (6)
POST 6% (7)

RESULT: POST > PRE

as compared with

Outer-directed communication (responding)

PRE 95% (12
POST 94% (120

RESULT: POST < PRE

Communication dealing with logic, imagination or affect

PRE 49% (63)
POST 67% (85)

RESULT: POST > PRE ($p < .05$)

as compared with

Communication dealing with information or facts

PRE 51% (66)
POST 33% (42)

RESULT: POST < PRE ($p < .05$)

Volume of Communication

Proportion of Child Communication

PRE 26% (127)
POST 25% (117)

RESULT: POST < PRE

as compared with

Proportion of Adult Communication

PRE 74% (364)
POST 75% (344)

RESULT: POST > PRE

Less Goal-Related Categories
Hypothesis: Post < Pre

TEACHER Mr. F GRADE 8-9 SUBJECT Language Arts

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Average POST Above Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST Yes

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST Yes

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

CASE STUDY NO. 7: MR. G

Mr. G is an eighth grade Language Arts teacher who is in his first year of teaching.

Pre-Videotape

Mr. G taught a lesson identifying the adjectives and adverbs in a workbook exercise to the class. The typical sequence of questioning was: "Pick out the adverb in sentence two... How do you know it's an adverb?" Afterward students were called to the blackboard to write out and define spelling words. Words such as "desultorily" were included in the lesson.

Staff Development Conference

The communication patterns were what one might expect from a traditional workbook lesson -- an emphasis on facts and information, little student-initiated communication, and infrequent comments which would fall under "adult support of learning" such as stimulating self-correction rather than correcting misinformation. Student involvement was only average. The need to reverse these trends, and the possibility of structuring the curriculum so as to enhance its relevance to student lives was discussed. Mr. G's master teacher reported that "he liked the idea of a more student-centered curriculum and was willing to try new methods of teaching."

Post-Videotape

Students brought in their own examples of commercials from magazines. Class discussion centered on basis of appeal of commercials

(expert vs. famous person endorsing product, etc.). Various categories of appeal were identified and commercials were classified. The class then broke down into smaller sub groups to continue their analysis of commercials. The teacher assumed the role of director for the whole class activity and the role of giving assistance when the class divided into sub groups.

All of the desired changes in communication patterns occurred. In fact, the increase in every one of the communication variables was statistically significant e.g., more adult and child communication dealing with logic and imagination; more adult support; more student-initiated communication and a higher proportion of child to adult communication. In addition, there was an increase in peer interaction, in student involvement and in the personalization of the activity.

Both he and his master teacher found the staff development program very stimulating and helpful.

TABLE I

BRACE DATA: CASE STUDY No. 7

TEACHER Mr. G GRADE 8 SUBJECT Language Arts

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Communication dealing with logic, imagination or affect

PRE [redacted] 26% (26)

POST [redacted] 74% (50)

RESULT: POST > PRE ($p < .05$)

Adult Variables

as compared with

More supportive communication (accepting, extending, recognizing specific accomplishments, stimulating self-correction)

PRE [redacted] 23% (27)

POST [redacted] 68% (61)

RESULT: POST > PRE ($p < .05$)

Less Goal-Related Categories
Hypothesis: Post < Pre

Communication dealing with information or facts

PRE [redacted] 74% (74)

POST [redacted] 26% (18)

RESULT: POST < PRE ($p < .05$)

as compared with

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

PRE [redacted] 77% (93)

POST [redacted] 32% (29)

RESULT: POST < PRE ($p < .05$)

TEACHER Mr. G GRADE 8 SUBJECT Language Arts

COMMUNICATION VARIABLES

Child Variables

More Goal-Related Categories
Hypothesis: Post > Pre

Self-initiated communication (initiating or asking)

PRE 2% (2)
POST 16% (17)

RESULT: POST > PRE ($p < .05$)

as compared with

Less Goal-Related Categories
Hypothesis: Post < Pre

Outer-directed communication (responding)

PRE 98% (94)
POST 84% (91)

RESULT: POST < PRE ($p < .05$)

Communication dealing with logic, imagination or affect

PRE 45% (43)
POST 69% (75)

RESULT: POST > PRE ($p < .05$)

as compared with

Communication dealing with information or facts

PRE 55% (53)
POST 31% (33)

RESULT: POST < PRE ($p < .05$)

Volume of Communication

Proportion of Child Communication

PRE 23% (95)
POST 35% (108)

RESULT: POST > PRE ($p < .05$)

as compared with

Proportion of Adult Communication

PRE 77% (320)
POST 65% (203)

RESULT: POST < RE ($p < .05$)

TEACHER Mr. G GRADE 8 SUBJECT Language Arts

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Average POST Above Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST Yes

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST Yes

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

CASE STUDY NO. 8: MRS. H

Mrs. H is a second year language arts teacher in a senior high school where the majority of the student body is comprised of black students, many of whom are former drop outs. She demonstrates an excellent attitude and rapport with her students and appears to possess a high degree of self confidence.

Pre-Videotape

The unit of study involved a cla-s discussion about writing and cashing personal checks. Students were asked to explain what should be done when cashing checks and making deposits. There was a fair amount of student involvement in asking or answering questions but little peer communication.

Staff Development Conference

The conference focused on the BRACE analysis of the videotape. Goals were set with respect to an increase in communication dealing with logic and imagination and an increase in adult support of learning, although these were present to some extent in the activity.

Post-Videotape

Mrs. H introduced unit on The Interview; noted the positive approaches, as well as obvious "don'ts". Then called on students (impromptu) for interviews on neighborhood job openings -- supermarket, service station, print shop, etc.

Increases occurred in the volume of child to adult communication and in the amount of child and adult communication dealing with logic, imagination and affect. In addition, there was a statistically significant increase in adult support of learning categories.

- Mrs. H's master teacher felt the program was useful in explaining and improving teacher interaction.

TABLE I

BRACE DATA: CASE STUDY No. 8

8

TEACHER Mrs. H GRADE 11-12 SUBJECT Language Arts

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Less Goal-Related Categories
Hypothesis: Post < Pre

Adult Variables

Communication dealing with logic, imagination or affect

as compared with

Communication dealing with information or facts

RESULT: POST > PRE

RESULT: POST < PRE

More supportive communication (accepting, extending, recognizing specific accomplichments, stimulating self-correction)

as compared with

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

RESULT: POST > PRE ($p < .05$)

RESULT: POST < PRE ($p < .05$)

TEACHER Mrs. H GRADE 11-12 SUBJECT Language Arts

61

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

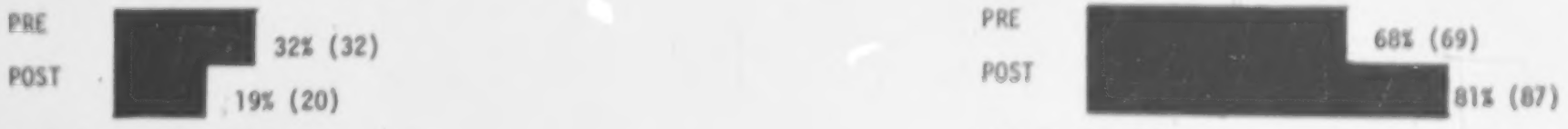
Less Goal-Related Categories
Hypothesis: Post < Pre

Child Variables

Self-initiated communication (initiating or asking)

as compared with

Outer-directed communication (responding)



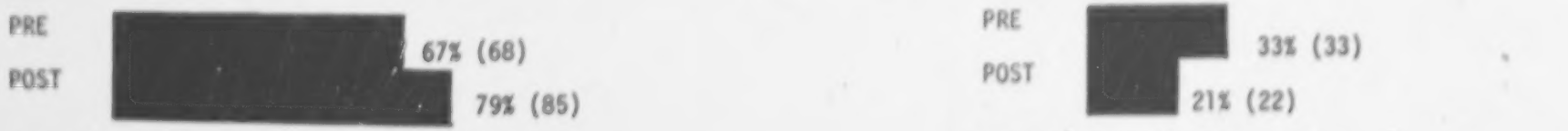
RESULT: POST > PRE

RESULT: POST > PRE

Communication dealing with logic, imagination or affect

as compared with

Communication dealing with information or facts



RESULT: POST > PRE

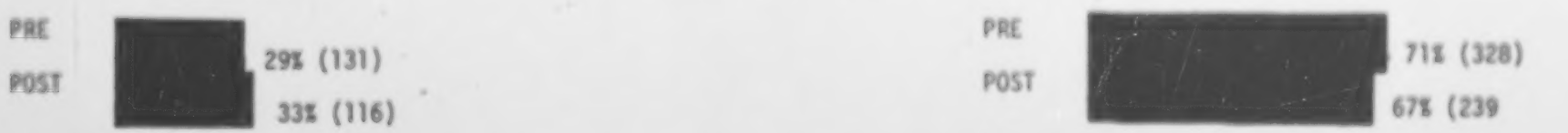
RESULT: POST < PRE

Volume of Communication

Proportion of Child Communication

as compared with

Proportion of Adult Communication



RESULT: POST > PRE

RESULT: POST < PRE

TEACHER Mrs. H GRADE 11-12 SUBJECT Language Arts

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Average POST Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE Yes POST Yes

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE Yes POST Yes

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

Student Gains in the Language Arts Basic Skills Program

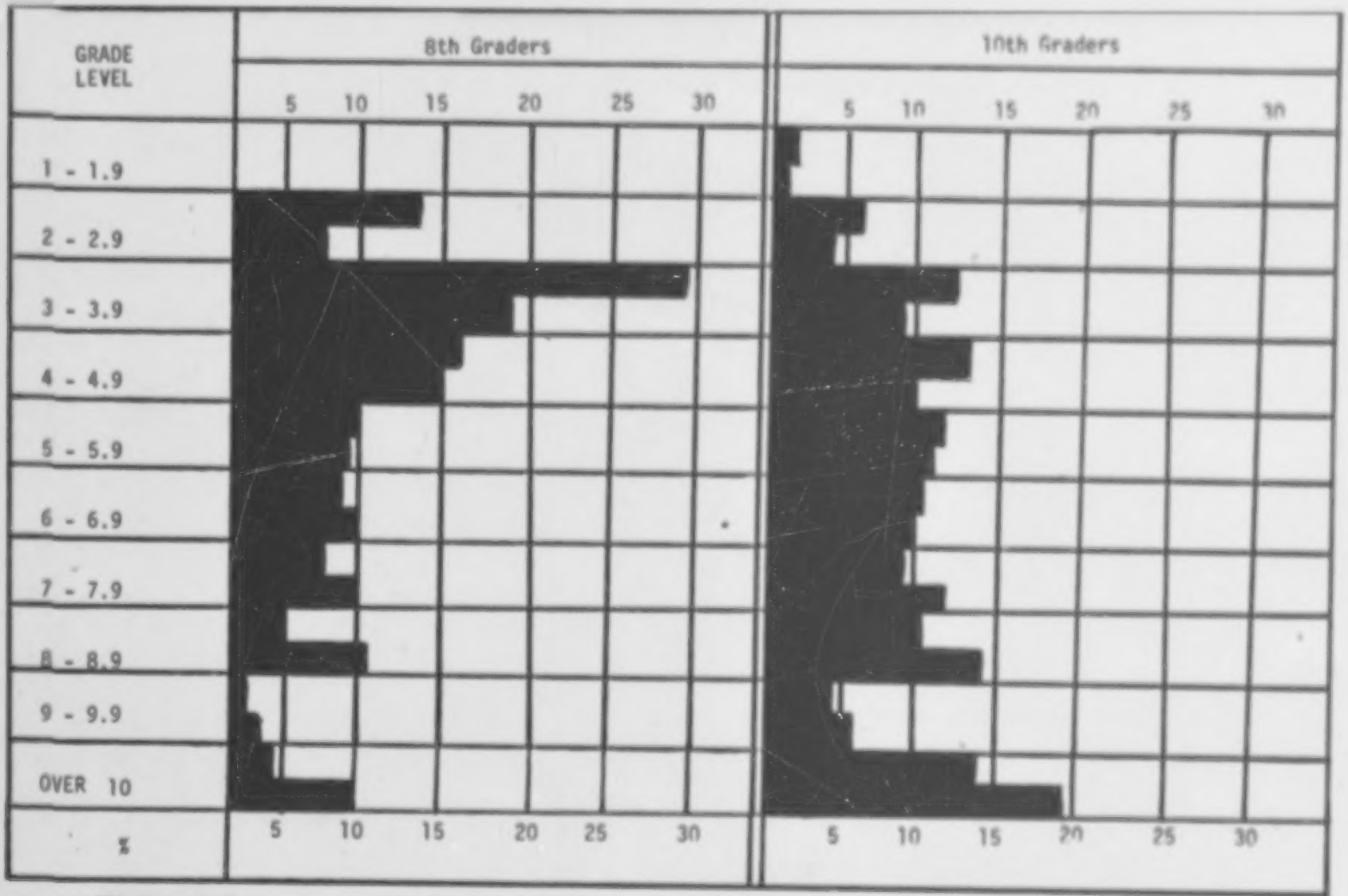
The five language arts classrooms in this sample were part of the Basic Skills program in Duval County. This program is concerned with increasing student achievement in the language arts area.

During the implcmentation of the staff development program, student gains in language arts basic skills were being assessed. The results are presented in Table II. As can be seen from this graph, students in this program made considerable gains over the course of the 1974-75 school year. The average increase was well over the expected one year gain.

Although it would be inappropriate to suggest a causal relationship between this staff development program and the gains in student achievement, it does seem reasonable to view the program as one of a number of factors which contributed to the gain in student achievement.

IPI - ESAA READING COMPREHENSION SKILLS

Pre and Post Test Results



CASE STUDY NO. 9: MRS I

Mrs. I is a language arts teacher for the tenth grade. This is her second year of teaching.

Pre-Videotape

Mrs. I presented a lecture to the class on the concept of "proximity" and the kinds of walls people build around themselves. Mrs. I was very dramatic--she seemed more like an actress than a teacher.

Staff Development Conference

Although the content of the lecture was thought provoking rather than dealing exclusively with factual material, there was almost no opportunity for student participation. Student involvement was rated as below average. However, Mrs. I's master teacher reported that Mrs. I "felt that the method used was appropriate for the activity and there is no reason for change."

Post-Videotape

Mrs. I presented a lecture to the class on the actor's insights in relation to the role he plays. The pre and post patterns of communication were pretty much the same. The only significant difference was an increase in the amount of student communication dealing with logic and imagination. However, the actual numbers involved (e.g. 12 instances in the post videotape) are so small that the difference is not educationally meaningful. Unfortunately, the case of Mrs. I demonstrates what can result when the teacher in the staff development program doesn't accept the goals of the program.

Mrs. I's master teacher expressed the feeling that....

> "the selection of the teacher was not good--she is not one who is flexible. I would like the experience of using BRACE under changed conditions. Dr. Mayer and Mr. Williams were very helpful and I would like further assistance from them."

TABLE I

BRACE DATA: CASE STUDY No. 9

TEACHER Mrs. I GRADE 11-12 SUBJECT Language Arts

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Less Goal-Related Categories
Hypothesis: Post < Pre

Adult Variables

Communication dealing with logic, imagination or affect

as compared with

Communication dealing with information or facts

PRE [redacted] 67% (16)

POST [redacted] 93% (13)

RESULT: POST > PRE

PRE [redacted] 33% (8)

POST [redacted] 7% (1)

RESULT: POST < PRE

More supportive communication (accepting, extending, recognizing specific accomplishments, stimulating self-correction)

as compared with

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

PRE [redacted] 100% (8)

POST [redacted] 100% (30)

RESULT: POST = PRE

PRE 0% (0)

POST 0% (0)

RESULT: POST = PRE

TEACHER Mrs. I GRADE 11-12 SUBJECT Language Arts

COMMUNICATION VARIABLES

More Goal-Related Categories Hypothesis: Post > Pre		Less Goal-Related Categories Hypothesis: Post < Pre
Child Variables		
Self-initiated communication (initiating or asking)	as compared with	Outer-directed communication (responding)
PRE 50% (6) POST 58% (7)		PRE 50% (6) POST 42% (5)
RESULT: POST > PRE		RESULT: POST < PRE
Communication dealing with logic, imagination or affect	as compared with	Communication dealing with information or facts
PRE 75% (9) POST 100% (12)		PRE 25% (3) POST 100% (0)
RESULT: POST > PRE ($p < .05$)		RESULT: POST < PRE ($p < .05$)
Volume of Communication		
Proportion of Child Communication	as compared with	Proportion of Adult Communication
PRE 20% (13) POST 18% (14)		PRE 80% (51) POST 82% (62)
RESULT: POST < PRE		RESULT: POST > PRE

TEACHER Mrs. I GRADE 11-12 SUBJECT Language Arts

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Below Average POST Below Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST No

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST No

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE NEGATIVE X

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE NEGATIVE X

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

CASE STUDY NO. 10: MRS. J

Mrs. J represents an excellent model of one of the older and more traditional type teachers. She is the department head of the mathematics department of a junior high school and teaches four class periods a day. She has been teaching for twenty or more years and displays excellent knowledge of subject and a sincere concern for her students. Mrs. J is a willing listener to suggestions for improvements.

Pre-Videotape

This eighth grade mathematics class was videotaped during a class session dealing with percentages and fractions. Students gave examples of where they had seen percentages used, etc. Various students were called upon to write fractions and percentages on the blackboard while other classmates commented.

Staff Development Conference

This lesson was characterized by an emphasis on facts with little student-initiated communication. Mrs. J was particularly interested in setting the goal of greater question-asking on the part of the students.

Post-Videotape

"Divisability" was reviewed and the concept of "powers" was introduced to the class. Statistically significant gains occurred in the amount of student-initiated communication, in adult and child

communication dealing with logic, and in the amount of adult support.

Mrs. J reported that she found BRACE useful in identifying her weak and strong points, and that she would like to use a simplified version of BRACE with her math department next year.

TABLE I

BRACE DATA: CASE STUDY No. 10

TEACHER Mrs. J GRADE 8 SUBJECT Math

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Communication dealing with logic, imagination or affect

PRE 32% (49)

POST 59% (94)

RESULT: POST > PRE ($p < .05$)

Adult Variables

as compared with

Less Goal-Related Categories
Hypothesis: Post < Pre

Communication dealing with information or facts

PRE 68% (103)

POST 41% (64)

RESULT: POST < PRE ($p < .05$)

More supportive communication (accepting, extending, recognizing specific accomplichments, stimulating self-correction)

as compared with

PRE 86% (119)

POST 94% (189)

RESULT: POST > PRE ($p < .05$)

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

PRE 14% (19)

POST 6% (12)

RESULT: POST < PRE ($p < .05$)

TEACHER Mrs. J GRADE 8 SUBJECT Math

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Child Variables

as compared with

Self-initiated communication (initiating or asking)

RESULT: POST > PRE ($p < .05$)

as compared with

Communication dealing with logic, imagination or affect

RESULT: POST > PRE ($p < .05$)

Volume of Communication

as compared with

Proportion of Child Communication

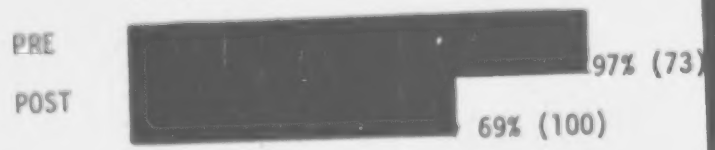
RESULT: POST > PRE

Less Goal-Related Categories
Hypothesis: Post < Pre

Child Variables

as compared with

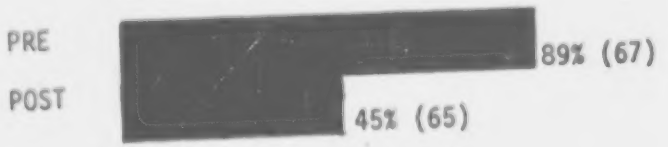
Outer-directed communication (responding)



RESULT: POST < PRE ($p < .05$)

as compared with

Communication dealing with information or facts



RESULT: POST < PRE ($p < .05$)

Volume of Communication

as compared with

Proportion of Adult Communication

RESULT: POST < PRE

TEACHER Mrs. J GRADE 8 SUBJECT Math

74

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Average POST Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST No

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE Yes POST Yes

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

CASE STUDY NO. 11: MR. K

Mr. K is a seventh grade math teacher with about ten years experience. He teaches in a Title I parochial school.

Pre-Videotape

There were 38 seventh grade students in the mathematics class videotaped. In order that the students understood the meaning of "area" Mr. K provided the students with the opportunity to participate in practical experiences by having them measure several rectangular figures and use the demensions to compute the area.

Staff Development Conference

This lesson was characterized by an emphasis on information and facts. There was almost no student-initiated communication and a relatively low frequency of adult support of learning. These patterns were discussed during the conference and the suggestion was made to increase the amount of adult support of learning, with special reference to extending, clarifying and recognizing specific accomplishments.

Post-Videotape

Mr. K reviewed formulae for measuring radii, diameters, and circumference of circles. Each student had his own "circle" -- bottle tops, coffee can, soft drink can -- which led to a variety of measuring experiences.

Statistically significant increases occurred with respect to the amount of adult and child communication dealing with logic; the amount of adult support of learning, and the frequency of student-initiated communication. There was also an increase in student involvement.

Mr. K perceived the videotaping as "a great opportunity to see and evaluate your actions in the classroom." He also reported that he found the BRACE analysis valuable in setting goals for changing teacher-student interactions.

TABLE I

BRACE DATA: CASE STUDY No. 11

TEACHER Mr. K GRADE 7 SUBJECT Math

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Less Goal-Related Categories
Hypothesis: Post < Pre

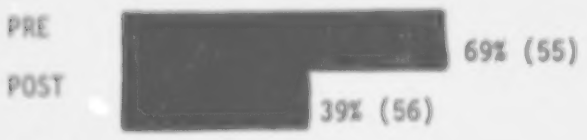
Adult Variables

Communication dealing with logic, imagination or affect

as compared with

Communication dealing with information or facts

RESULT: POST > PRE ($p < .05$)



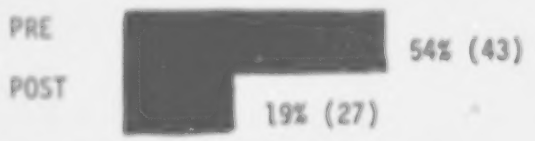
RESULT: POST < PRE ($p < .05$)

More supportive communication (accepting, extending, recognizing specific accomplichments, stimulating self-correction)

as compared with

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

RESULT: POST > PRE ($p < .05$)



RESULT: POST < PRE ($p < .05$)

TEACHER Mr. K GRADE 7 SUBJECT Math

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

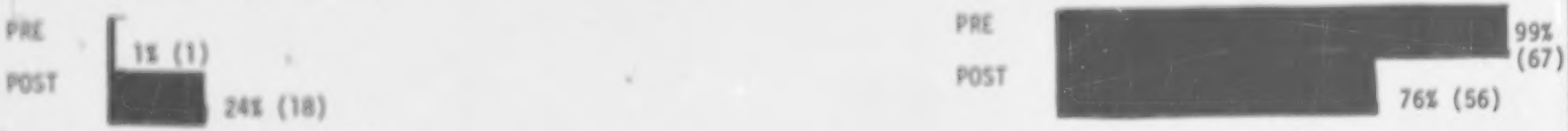
Less Goal-Related Categories
Hypothesis: Post < Pre

Child Variables

Self-initiated communication (initiating or asking)

as compared with

Outer-directed communication (responding)



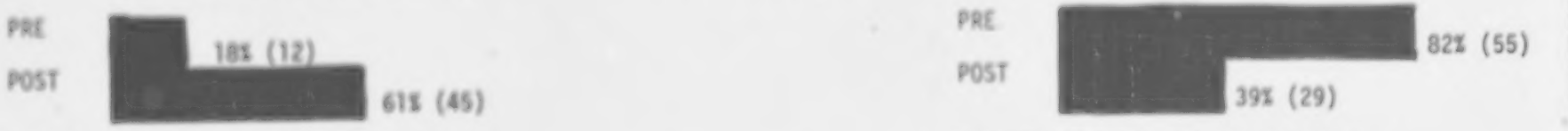
RESULT: POST > PRE ($p < .05$)

RESULT: POST < PRE ($p < .05$)

Communication dealing with logic, imagination or affect

as compared with

Communication dealing with information or facts



RESULT: POST > PRE ($p < .05$)

RESULT: POST < PRE ($p < .05$)

Volume of Communication

Proportion of Child Communication

as compared with

Proportion of Adult Communication

RESULT: POST < PRE

RESULT: POST > PRE

TEACHER Mr. K GRADE 7 SUBJECT Math

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Average POST Above Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST No

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE Yes POST Yes

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

CASE STUDY NO. 12: MR. L

Mr. L is a second year tenth grade math teacher.

Pre-Videotape

Mr. L explained how to figure out salaries for overtime hours.

Staff Development Conference

This lesson was characterized by an emphasis on information and facts with little adult support. In particular, Mr. L had a tendency to correct students rather than to "stimulate self-correction". The desirability of reversing these trends was discussed during the conference. Mr. L's master teacher reported that Mr. L "accepted these comments and was very interested in the BRACE evaluation and in the plan to obtain a post-videotape".

Post-Videotape

Students worked on mastering ratios and percentages in small group activities, using newspapers for math problems. This activity resulted in an increase in student involvement and in the ratio of child to adult communication. Statistically significant increases occurred with respect to the amount of adult and child communication dealing with logic and in the amount of adult support of learning.

Although Mr. L found the videotaping, conferencing, and BRACE analysis "useful", his master teacher felt the BRACE instrument was "too complex and time consuming".

TABLE I

BRACE DATA: CASE STUDY No. 12

TEACHER Mr. L GRADE 11 SUBJECT Math

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

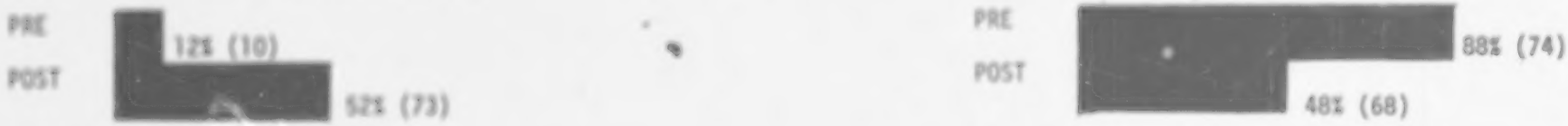
Less Goal-Related Categories
Hypothesis: Post < Pre

Adult Variables

Communication dealing with logic, imagination or affect

as compared with

Communication dealing with information or facts



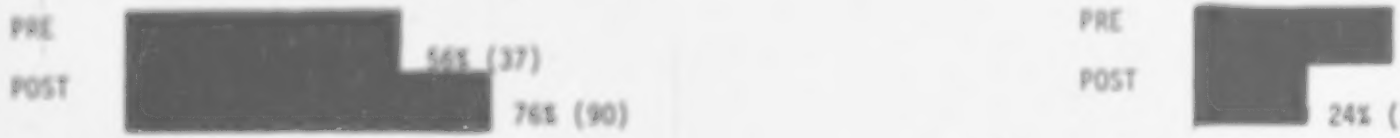
RESULT: POST > PRE ($p < .05$)

RESULT: POST PRE ($p < .05$)

More supportive communication (accepting, extending, recognizing specific accomplichments, stimulating self-correction)

as compared with

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)



RESULT: POST > PRE ($p < .05$)

RESULT: POST < PRE ($p < .05$)

TEACHER Mr. L GRADE 11 SUBJECT Math

COMMUNICATION VARIABLES

More Goal-Related Categories Hypothesis: Post > Pre		Less Goal-Related Categories Hypothesis: Post < Pre
Child Variables		
Self-initiated communication (initiating or asking)	as compared with	Outer-directed communication (responding)
PRE 51% (45) POST 26% (33)		PRE 49% (44) POST 74% (92)
RESULT: POST < PRE		RESULT: POST > PRE
Communication dealing with logic, imagination or affect	as compared with	Communication dealing with information or facts
PRE 15% (13) POST 53% (66)		PRE 85% (76) POST 47% (59)
RESULT: POST > PRE ($p < .05$)		RESULT: POST < PRE ($p < .05$)
Volume of Communication		
Proportion of Child Communication	as compared with	Proportion of Adult Communication
PRE 26% (78) POST 30% (156)		PRE 74% (224) POST 70% (366)
RESULT: POST > PRE		RESULT: POST < PRE

TEACHER Mr. L GRADE 11 SUBJECT Math

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Average POST Above Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE Yes POST Yes

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE Yes POST Yes

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE NEGATIVE X

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

CASE STUDY NO. 13: MRS. M

Mrs. M is a third year eighth grade math teacher.

Pre-Videotape

Mrs. M used the overhead projector to explain "positive" and "negative" numbers to the class. Students were called on to answer questions.

Staff Development Conference

This traditional math lesson was characterized by an emphasis on information and facts with a minimum of student-initiated communication. Student involvement was only average and there was no personalization of the learning activity. These patterns were pointed out during the conference and suggestions were discussed regarding ways to make the math curriculum more relevant to students, and to have students take a more active role in their own learning.

Post-Videotape

The class was divided into small groups with each group involved in a different activity. These activities consisted of working out formulas and obtaining measurements of different objects. Students rotated to different groups at specified times and Mrs. M circulated from group to group.

Statistically significant increases occurred in the amount of adult and child communication dealing with logic, in the amount

of adult support of learning, and in the amount of student-initiated communication. There were also increases in the ratio of child to adult communication, in student involvement, and in the personalization of the learning activity. Mrs. M's master teacher wrote that Mrs. M "admitted that the tape, conference and BRACE analysis created a change in her teaching techniques".

TABLE I

BRACE DATA: CASE STUDY No. 13

86

TEACHER Mrs. M GRADE 8 SUBJECT Math

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

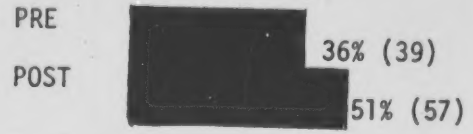
Less Goal-Related Categories
Hypothesis: Post < Pre

Adult Variables

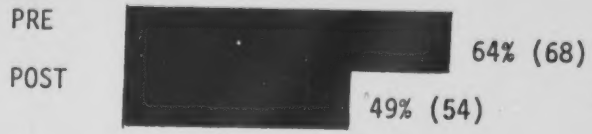
Communication dealing with logic, imagination or affect

as compared with

Communication dealing with information or facts



RESULT: POST > PRE ($p < .05$)

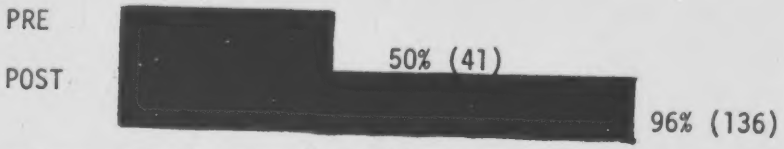


RESULT: POST < PRE ($p < .05$)

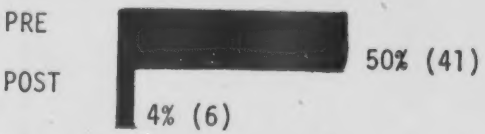
More supportive communication (accepting, extending, recognizing specific accomplichments, stimulating self-correction)

as compared with

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)



RESULT: POST > PRE ($p < .05$)



RESULT: POST < PRE ($p < .05$)

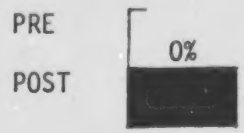
TEACHER Mrs. M GRADE 8 SUBJECT Math

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Child Variables

Self-initiated communication (initiating or asking)



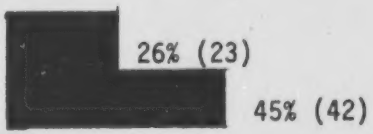
RESULT: POST > PRE ($p < .05$)

as compared with

Outer-directed communication (responding)

RESULT: POST < PRE ($p < .05$)

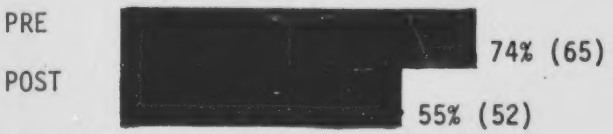
Communication dealing with logic, imagination or affect



RESULT: POST > PRE ($p < .05$)

as compared with

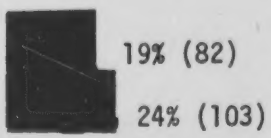
Communication dealing with information or facts



RESULT: POST < PRE ($p < .05$)

Volume of Communication

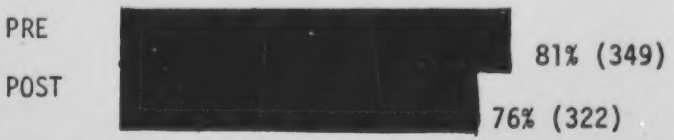
Proportion of Child Communication



RESULT: POST > PRE

as compared with

Proportion of Adult Communication



RESULT: POST < PRE

TEACHER Mrs. M GRADE 8 SUBJECT Math

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Average POST Above Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST No

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST Yes

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

CASE STUDY NO. 14: MRS. N

Mrs. N is a second year math teacher who works with eighth graders.

Pre-Videotape

Mrs. N explained how to find the circumference, diameter, and radius of a circle to the whole class. A few students were called to the board to draw or identify the circumference, diameter or radius of a circle.

Staff Development Conference

The math lesson could best be characterized as a credible job of textbook teaching. Rather than "figuring out" the relationships between a circumference, diameter, and radius of a circle, definitions and formulas were recited. There was no self-initiated child communication and most of the teacher's questions and student's responses were information and facts rather than logical thoughts. The desirability of reversing these trends and of perhaps using concrete materials in the lesson was discussed.

Post-Videotape

Mrs. N reviewed formulas for finding the areas of different surfaces with the class. Students applied these formulas to different objects in the classroom, and asked questions concerning the results. All of the desired increases in communication patterns occurred. There was more child talk and statistically significant increases occurred with respect to adult and child communication dealing with logical thought; self-initiated child communication; and adult support of learning (less perfunctory acknowledgement). Despite these increases, Mrs. N's master teacher had a very negative reaction to the staff development program. She did not feel

the BRACE analysis system was applicable to math lessons and she felt the videotaping...

> "caused a disturbance which created an artifical classroom situation".

She felt the staff development conference had some potential value "but a one-time thing is not enough to do much good".

TABLE I

BRACE DATA: CASE STUDY No. 14

TEACHER Mrs. N GRADE 8 SUBJECT Math

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Less Goal-Related Categories
Hypothesis: Post < Pre

Adult Variables

Communication dealing with logic, imagination or affect

as compared with

Communication dealing with information or facts

RESULT: POST > PRE ($p < .05$)

RESULT: POST < PRE ($p < .05$)

More supportive communication (accepting, extending, recognizing specific accomplichments, stimulating self-correction)

as compared with

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

RESULT: POST > PRE ($p < .05$)

RESULT: POST < PRE ($p < .05$)

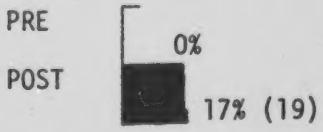
TEACHER Mrs. N GRADE 8 SUBJECT Math

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

Child Variables

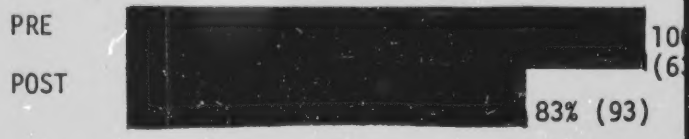
Self-initiated communication (initiating or asking)



RESULT: POST > PRE ($p < .05$)

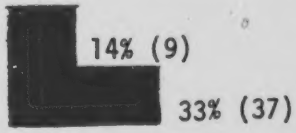
as compared with

Outer-directed communication (responding)



RESULT: POST < PRE ($p < .05$)

Communication dealing with logic, imagination or affect



RESULT: POST > PRE ($p < .05$)

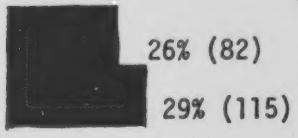
as compared with

Communication dealing with information or facts

RESULT: POST < PRE ($p < 05$)

Volume of Communication

Proportion of Child Communication



RESULT: POST > PRE

as compared with

Proportion of Adult Communication

RESULT: POST < PRE

TEACHER Mrs. N GRADE 8 SUBJECT Math

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Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Average POST Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST No

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST Yes

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE NEGATIVE X

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE NEGATIVE X

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE NEGATIVE X

CASE STUDY NO. 15: MRS. O

Mrs. O teaches math to 10th and 11th graders. This is her third year of teaching. Her master teacher describes her as "a very shy, private and independent person."

Pre-Videotape

Mrs. O used an overhead projector to demonstrate how to add, subtract, multiply and divide fractions, and how to change a mixed number to a fraction. There were about 25 students in the class. Work sheets were distributed for practice while Mrs. O helped students individually.

Staff Development Conference

An analysis of the lesson with the BRACE system revealed an emphasis on information and facts with little self-initiated child communication. Although goals were set to alter these patterns, the basic lesson structure of presenting material to the whole class and then working with students individually was not challenged. Her master teacher felt that "she is comfortable with this approach, so there is no sense of changing it at this time."

Post-Videotape

Mrs. O used an overhead project to demostrate finding percentages. Then work sheets were distributed and Mrs. O checked work individually by moving from desk to desk. Although the teaching situation remained

identical in the pre and post videotape, Mrs. O's patterns of communication changed in desired directions. Significant increases occurred with respect to adult and child communication dealing with logic and adult supportive communication. The ratio of child to adult communication also increased but the difference was not significant.

Mrs. O's master teacher felt the videotaping and BRACE analysis:

> "helps to zero in on most of the traits that contribute to effective teaching."

TABLE I

BRACE DATA: CASE STUDY No. 15

TEACHER Mrs. O GRADE 10-11 SUBJECT Math

COMMUNICATION VARIABLES

More Goal-Related Categories
Hypothesis: Post > Pre

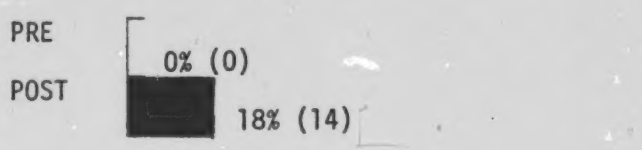
Less Goal-Related Categories
Hypothesis: Post < Pre

Adult Variables

Communication dealing with logic, imagination or affect

as compared with

Communication dealing with information or facts



RESULT: POST > PRE ($p < .05$)

RESULT: POST < PRE ($p < .05$)

More supportive communication (accepting, extending, recognizing specific accomplishments, stimulating self-correction)

as compared with

Less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

RESULT: POST > PRE ($p < .05$)

RESULT: POST < PRE ($p < .05$)

TEACHER Mrs. O GRADE 10-11 SUBJECT Math

COMMUNICATION VARIABLES

Child Variables

More Goal-Related Categories
Hypothesis: Post > Pre

Self-initiated communication (initiating or asking)

RESULT: POST < PRE

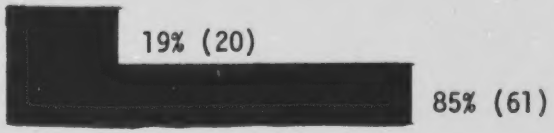
as compared with

Less Goal-Related Categories
Hypothesis: Post < Pre

Outer-directed communication (responding)

RESULT: POST > PRE

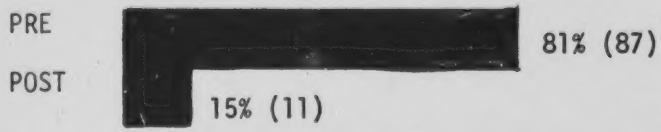
Communication dealing with logic, imagination or affect



RESULT: POST > PRE ($p < .05$)

as compared with

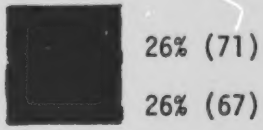
Communication dealing with information or facts



RESULT: POST < PRE ($p < .05$)

Volume of Communication

Proportion of Child Communication



RESULT: POST = PRE

as compared with

Proportion of Adult Communication

RESULT: POST = PRE

TEACHER Mrs. O GRADE 10-11 SUBJECT Math

Extent of child/group involvement: hypothesis is that there will be movement from below average to above average when pre is below average.

RESULT: PRE Average POST Average

Likeliness of peer communication: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST No

Relevance and personalization of learning activity: hypothesis is that there will be movement from no to yes when pre is no.

RESULT: PRE No POST No

QUESTIONNAIRE VARIABLES

Hypothesis: The BRACE System will be perceived as a helpful tool toward changing teaching behavior in desired directions.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The use of video-tape will be perceived as a valuable vehicle for enhancing teacher self-awareness.

RESULT: POSITIVE X NEGATIVE

Hypothesis: The technique of one-to-one conferencing between a classroom teacher and a master teacher (or educational consultant) will be perceived as helpful.

RESULT: POSITIVE X NEGATIVE

Student Gains in the Math Basic Skills Program

The six math classrooms in this sample were part of the Basic Skills program in Duval County. This program is concerned with increasing student achievement in computational skills.

During the implementation of the staff development program, student gains in math basic skills were being assessed. The results are presented in Table III. As illustrated by this graph, students in this program made considerable gains over the course of the 1974-75 school year. The average increase was well over the expected one year gain.

Although it would be inappropriate to suggest a causal relationship between this staff development program and the gains in student achievement, it does seem reasonable to view the program as one of a number of factors which contributed to the gains in student achievement.

IPI - ESAA MATH RESULTS

Pre and Post Test Results

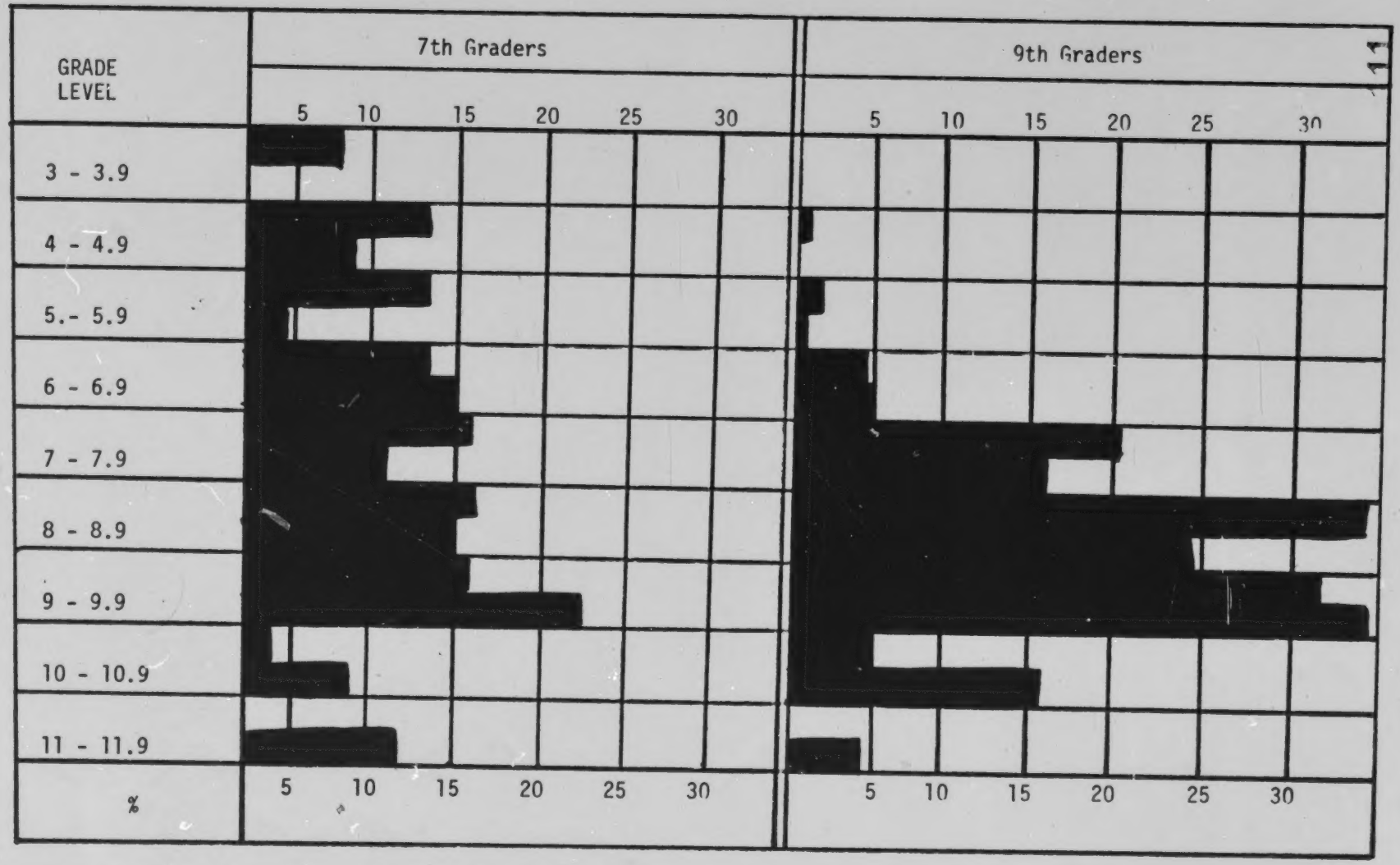
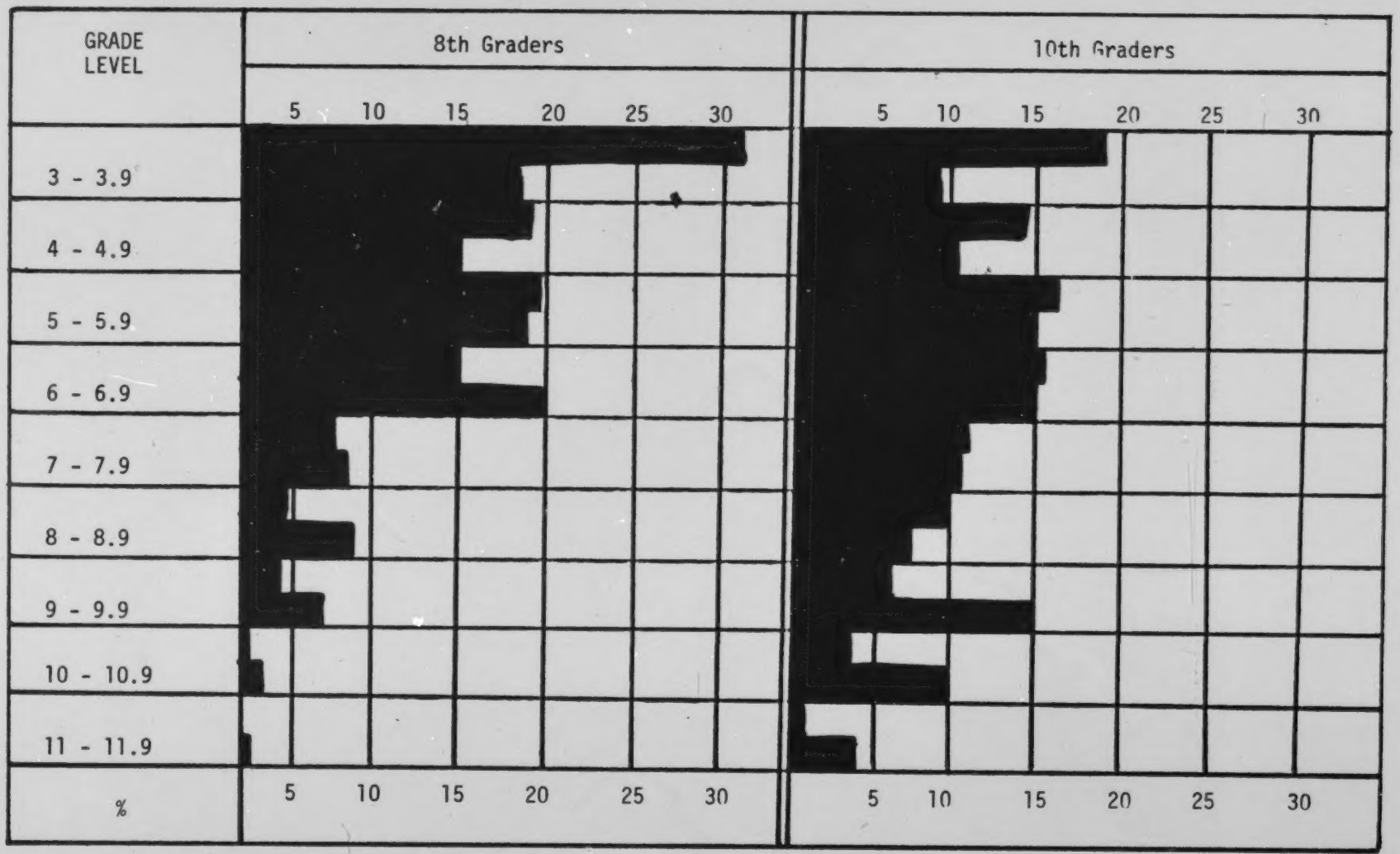


TABLE III

IPI - ESAA MATH RESULTS

Pre and Post Test Results



Summary and Discussion of Data

Communication Variables: Table IV summarizes the data for the fifteen teachers with respect to each hypothesis dealing with adult and child communication.

Hypothesis I posited that adult communication dealing with logic, imagination or affect will increase relative to communication dealing with facts and information. This hypothesis was confirmed in 14 out of the 15 cases, with significant increases occurring for 9 of the teachers. The treatment had a significant effect (sign test $p < .059$) with respect to this hypothesis.

Concomitantly, Hypothesis IV which posited an increase in the amount of child communication dealing with logic, imagination or affect will increase relative to communication dealing with facts and information was also confirmed in 14 out of the 15 cases, with significant increases occurring in 10 classrooms. The treatment had a significant effect (sign test $p < .059$) with respect to this hypothesis.

These dramatic results suggest that the teachers were willing to accept the need to stimulate thinking in their classrooms. No matter what disagreements teachers have regarding educational goals, they tend to agree that the central purpose of education is to develop children's thinking. When they saw how little "thinking" was taking place and how much emphasis was placed on rote information, they apparently worked hard to redress the balance.

Hypothesis II posited that more supportive communication (accepting, extending, recognizing, stimulating self-correction) will increase relative to less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation). This hypothesis was confirmed in 12 out of the 15 cases with significant increases occurring for 11 of the teachers. The treatment had a significant effect (sign test $p < .059$) with respect to this hypothesis. This finding was particularly gratifying since so much emphasis was placed on the adult support categories during the one-to-one conferencing.

Hypothesis III posited that self-initiated child communication (initiating or asking) will increase relative to outer-directed communication (responding). This hypothesis was confirmed in 11 out of the 15 cases with significant increases occurring in 8 of the classrooms. The treatment had a significant effect (sign test $p < .059$) with respect to this hypothesis.

Hypothesis V posited that the volume of child communication will increase relative to the volume of adult communication. This hypothesis was confirmed in 9 out of the 15 cases with significant increases in 3 classrooms. These figures do not meet the sign test for significance at the $p < 059$ level and it cannot, therefore, be concluded that the treatment was effective with respect to this hypothesis.

Child communication averaged about 25% of the total communication. The low ratio of child to adult talk was the most intractable characteristic of classroom communication. The failure of the treatment to have a significant effect with respect to this hypothesis may also

reflect the lack of emphasis placed on this variable, relative to other variables, during the one-to-one conferencing with classroom teachers.

Behavior-Setting Variables: Table V summarizes the data for the fifteen teachers with respect to the Behavior-Setting Variables and the Questionnaire Variables.

Student involvement increased in 8 of the 15 cases. Although this represents an increase in over half of the cases, this did not constitute a statistically significant effect using a sign test at the $p < .059$ level. However, the increase was, in may of the individual classrooms, educationally significant.

In 6 out of 12 cases peer interaction was a component of the activity in the post videotape where it had not been a component in the pre videotape. In the other 3 cases peer interaction was present in both the pre and post videotaped activities. Again, this result was not statistically significant but seemed to make a great deal of difference in individual cases. In 5 of the 6 cases this increase correlated with an increase in student involvement.

In 6 out of 9 cases the classroom activity observed in the post videotape could be characterized as personally meaningful or relevant to student's out of school experiences where the pre videotaped activity could not be characterized in that way. In the other 6 cases personalization of the activity was present in both the pre and post videotaped activities. As in the case of the other Behavior-Setting Variables this increase was not statistically significant but, in many individual cases, was educationally significant. Workbook activities

gave way to lively discussions focused on topics of real concern to students. The difference in student interest was marked. In 5 out of the 6 cases, the increase in personalization of activity correlated with an increase in student involvement.

Questionnaire Variables: A questionnaire was submitted to the four John Love Elementary School teachers (see Appendix I) and the eleven Basic Skills master teachers (see Appendix I) to ascertain the perceived value of the staff development program. Unless a program is perceived as helpful and worthwhile, it's objective effectiveness is of little moment.

Reactions were sought concerning the value of the BRACE system as a analytic tool for changing teacher behavior, the value of using videotape as a means of stimulating self awareness and the value of the staff development conference as a technique for promoting teacher change.

Perceived value of conferencing: All but one participant felt the conferencing strategy was helpful and important. Many teachers had positive things to say about the conferences. One wrote: "This was the best part of the program . . . the conferences serve as a great sharing and learning time." Many saw the conferencing strategy as a core ingredient in any staff development program. As one master teacher put it: "Conferencing promotes professionalism and encourages exploration and change."

Perceived value of videotaping: All but two participants saw value in viewing themselves on videotape. One comment read "Very

beneficial! It's not only good to see yourself but to see how the children react to you and to the lesson." Another teacher wrote that videotaping was "a good way to get an objective view of oneself in action. You really get to see how you are doing." One teacher summed up the feelings of many when she wrote: "The videotape was very valuable. I could see things I wanted to change."

One person objected to the videotaping stating that it caused "a disturbance that created an artifical classroom situation." This is one of the risks in videotaping and necessitates that the person doing the videotaping be as skillful and unobtrusive as possible. But no matter how skilled or well-prepared the technician is, there will occasionally be the realities of technical difficulties, and of occasionally creating a disturbance. This practitioner's experience with videotaping also made him aware of the time and expense and logistics involved as well as the need to make careful arrangements.

Despite these real and potential drawbacks the objective benefits as well as the perceived value of videotaping suggests that the method should be employed wherever possible.

Perceived value of BRACE analysis: Three out of the fifteen participants did not find the BRACE analysis system useful -- one because he questioned its relevance to math lessons; one because she felt it was "too complex and too time consuming" and one because she felt the types of communication identified were not important. However, many viewed the instrument as providing analytic power and

insight into identifying positive and negative teaching processes. One participant wrote: "Analysis of communication patterns with BRACE categories shows the specific areas that need strengthening and why these are weak." Another stated: "It helps you zero in on most of the traits that contribute to effective teaching." Another participant perceived the instrument as "helpful in providing a means to evaluate one's goals in teaching." Another person wrote that BRACE: "created an awareness of some things that were not thought of before." Representative of many comments was one teacher who wrote: "It made me more aware of lines of communication in my classroom and how I need to improve." Some of the master teachers and classroom teachers are working in plans to use the BRACE system next year. This, perhaps, is the most meaningful testament to the value of the BRACE Analysis System.

Additional Suggestions: Participants also made suggestions regarding the design of the staff development program in their questionnaire responses. These suggestions included: the desire for a simplified BRACE form. This was, in fact, developed during this staff development program, but it was not possible to reschedule all groups for re-training with the shortened form. Some groups did, however, receive this exposure.

-- more in-service time to learn how to code with the instrument.

-- more videotapings to study teacher behavior more intensively and over a longer period of time.

-- redesigning the study so that the pre-taping is obtained with no prior notice to the teacher, and the post-taping obtained with prior

notice. This design will highlight the value and importance of planning when comparing the pre and post tape.

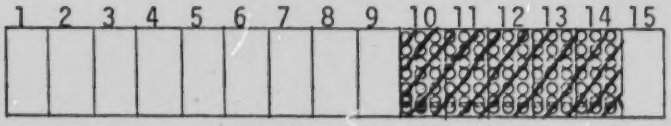
TABLE Iv

SUMMARY OF DATA

Adult Communication Variables

Hypothesis: Post > Pre

Communication dealing with logic, imagination or affect will increase relative to communication dealing with facts and information

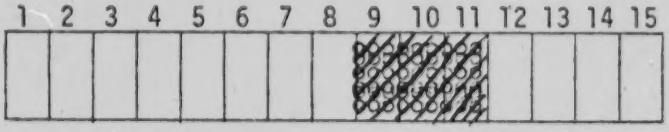


More supportive communication (accepting, extending, recognizing, stimulating self-correction) will increase relative to less supportive communication (perfunctory acknowledgement, meaningless praise, correcting misinformation)

Child Communication Variables

Hypothesis: Post > Pre

Self-initiated communication (initiating or asking) will increase relative to outer-directed communication (responding)



Communication dealing with logic, imagination or affect will increase relative to communication dealing with facts and information

The volume of child communication will increase relative to the volume of adult communication

Legend = Number of Subjects where

Hypothesis confirmed at .05 level of significance

Hypothesis confirmed

Hypothesis not confirmed

*Treatment had an effect with $p < .059$

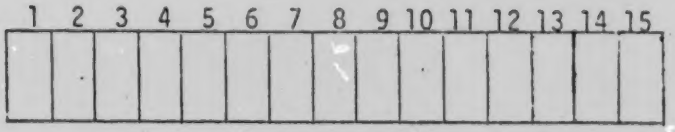
TABLE V

SUMMARY OF DATA

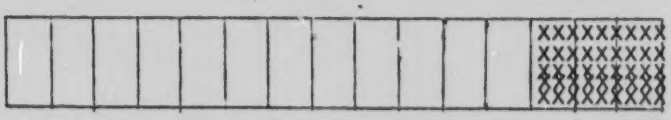
Behavior/Setting Variables

Hypothesis: Post > Pre

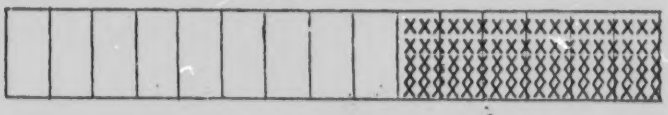
Increase in extent of student involvement



Increase in likeliness of peer communication



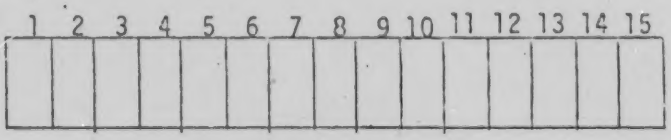
Increase in personalization of learning activity



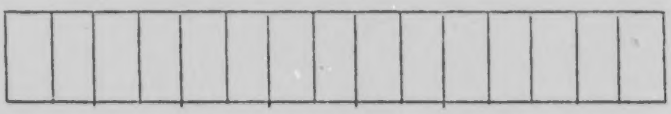
Questionnaire Variables

Hypothesis: Post > Pre

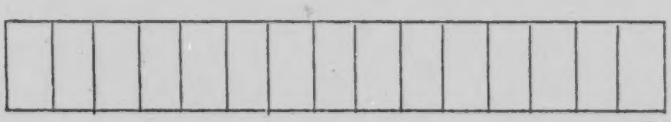
The BRACE System will be perceived as a helpful tool for changing teaching behavior



The use of videotape will be perceived as worthwhile



The one-to-one conference will be perceived as a valuable experience



Legend = Number of Subjects where

Hypothesis confirmed

Hypothesis not confirmed

Hypothesis not applicable because of high pre (applies to Behavior/Setting Variables only)

Value of BRACE Training Session for those Who Did Not Participate in the Study

An open-ended questionnaire was distributed to persons who participated in a BRACE workshop but who did not later participate in the in-depth study to change teaching behavior via videotape and the BRACE analysis.

The questionnaire read: How would you evaluate the usefulness of the workshops on adult-child interaction with the BRACE analysis system? What were the perceived values and outcomes of the in-service training session in the use of the BRACE observation instrument?

This information would be used to ascertain if the workshop, alone, was perceived as worthwhile.

The questionnaire was distributed to 30 participants. The nineteen who responded all thought the workshops were valuable. It is noteworthy that one participant used the workshop experience as a jumping off point for a staff development program in her own school.

Two respondents had reservations about the complexity of the long form of the BRACE instrument and preferred using the short form in their own classrooms. However, both saw value in first learning the long form as background information.

One person expressed reservations about the potential value of applying the BRACE interaction analysis system because of (a) the reluctance of teachers to place themselves in this situation and (b) the probability of a "set up" situation.

However, the overwhelming positive responses from this open-ended questionnaire suggests that the BRACE workshop component is a valuable staff development experience in and of itself. The following verbatim exerpts from some of the questionnaires demonstrates this point aptly:

> As I sat in the workshop the wheels were spinning because I could see how it could be very useful to our school and before the day ended I knew I wanted it tried, in what room, and for what reason.
>
> After explaining BRACE to the principal and discussing the idea and the purpose of it the wheels began to move.
>
> A videotaping was made in a 4th grade classroom where the teacher was having discipline problems, problems with planning and little knowledge of what to do with her aide.
>
> There had been many demonstrations in this room-many suggestions made from observations, but there was no follow-up on the teachers part.
>
> The videotaping with the BRACE analysis and the one-to-one conference not only helped the teacher but gave the whole faculty a better perspective on their verbal communications with the children and ways to use the aides more advantageous to all.
>
> * * *
>
> In reviewing the summative research on BRACE, I find that it clearly states the strengths and weaknesses I was going to set forth. I feel the system could be valuable in assessing any program or simply assessing instruction when constraints are taken into consideration.
>
> * * *
>
> From the in-service training session it has made me more aware of my verbal and non-verbal behavior in the classrooms.
>
> * * *

* * *

Any training of this sort makes us much more aware of our interactions with others. It makes us take note of the kind of communication patterns we are using most frequently.

Being made aware of the kinds of communication patterns, we could share this information with our aides. They can watch the way they are responding to children.

* * *

The workshops enabled teachers to see areas where they should focus their efforts to create more effective interaction in the classroom e.g. in asking questions, etc. The system could prove very effective if well trained observers were provided or if we were provided with the proper training to become observers ourselves. The workshop showed how good interaction was an essential component of educating our children.

* * *

Although I only attended one BRACE workshop, I thought the session I attended was very useful. I could see the utility of the BRACE instrument if one had been videotaped and you could go back and view your own teaching using the BRACE instrument on yourself. I was sorry I was not able to do this. I would think the value of these in-service workshops lies in the teacher awareness of adult-child interaction and the importance of verbal communication in our role as a teacher.

* * *

The workshops made you aware of what you were doing and also pinpointed types of interaction that you want to develop, continue and delete.

Although the first instrument was somewhat cumbersome, it was necessary for the background and understanding of the BRACE concept and purpose. The short form was more flexible and functional in our particular situation.

These workshops have benefited our school as a whole, as our teachers are more aware of a positive and purposeful interaction with the students.

There has very definitely been improvement in our classes where the videotapings took place. Thank you for including our school.

* * *

If the BRACE observation instrument (short form) is used with objective intent it could prove to be an expedient means of facilitating the conversion of the classroom from teacher centered to student centered.

The BRACE instrument offers a great deal more than any of the analysis systems that I am acquainted with. It lends itself to immediate feedback as well as to a long term self-study. A great number of "spin-offs" can be gained from the use of BRACE analysis system.

The workshops were interesting and the last meeting we had was not only informative but fun.

* * *

The workshops were excellent ways to share ideas and input into ways to improve my classroom. The people conducting the workshops were very professional and knowledgeable. They were eager to change and improve the instrument which we did.

I know I must ever be aware of ways to improve myself and my teaching skills. The training sessions made me think and ask questions. I feel I've learned the value of listening more to my students.

* * *

relating classroom activities to real-life problems in classrooms where it had previously not been present (6 out of 9).

In addition, all but one of the fifteen participants perceived one or more aspects of the staff development program as helpful and worthwhile. Fourteen felt that the one-to-one conference was worthwhile; thirteen felt that the use of the videotape was effective; and twelve felt that the BRACE analysis was helpful.

Implications of Study

The success of the staff development program in changing teacher behavior, and the fact that the participants perceived this experience as helpful and worthwhile, suggests that this type of program should be continued and implemented on a wider basis.

This view was expressed by Mrs. Davis, Mr. Gugel, and Mr. Doyle in a panel discussion reviewing the benefits of the staff development experience (see accompanying videotape report of Practicum). The ideal goal would be to apply the BRACE system in a staff development program on a system-wide basis.

Implementation of Project in Local School System

Mr. John Geilen, Mr. M. S. J. Greek and Dr. Rochelle Mayer have recommended continuation of the BRACE Interaction Analysis System in the local school system (see Appendix P). Dr. Mayer has also made provisions for this practicum to be published in the fall of 1975 by Bank Street College of Education, New York.

On June 6, 1975 Mrs. Dorothy Williams, Supervisor, Multi Ethnic Program, four members of her staff; Dr. Rochelle Mayer and Dr. Carol Rosenfeld, Bank Street Consultants and this practitioner met to discuss and plan for the continuation of the BRACE system in 35 schools of the Multi Ethnic Program for the 1975-76 school year.

CHAPTER V

CHAPTER V

CONCLUSIONS AND IMPLICATIONS

The major conclusion of the present study is that the staff development program which was implemented with fifteen teachers was effective in promoting change in teacher and child communication patterns and behavior.

Summary of Findings

The program had a statistically significant effect in:

- -increasing the amount of adult communication dealing with logic, imagination or affect relative to the amount of communication dealing with facts and information.
- -increasing the amount of adult communication which was supportive (accepting, extending, recognizing, stimulating self-correction) relative to the amount of adult communication which was less supportive (perfunctory acknowledgement, meaningless praise, correcting misinformation).
- -increasing the amount of self-initiated child communication (initiating or asking) relative to the amount of outer-directed communication (responding).
- -increasing the amount of child communication dealing with logic, imagination or affect relative to the amount of child communication dealing with facts and information.

The program also resulted in an increase in the volume of child communication relative to adult communication for eight of the fifteen teachers in the study. However, this result is not statistically significant.

There was also considerable gain in student involvement (8 out of 15); in encouraging peer communication in classrooms where it had previously not been present (6 out of 12); and in personalizing the curriculum by

BIBLIOGRAPHY

BIBLIOGRAPHY

Books

Amidon, Edmund & Hunter, Elizabeth, Improving Teaching: The Analysis of Classroom Verbal Interaction, Holt, Rinehart, and Winston, Inc. March, 1967, p. 1-221.

Bellack, Arno A., Kliebard, Herbert M., Hyman, Ronald T., Smith, Frank L. Jr., The Language of the Classroom, Teachers College Press, Teachers College, Columbia University, New York, 1966, p. 1-274.

Biddle, Bruce J., Ellena, William J., Contemporary Research on Teacher Effectiveness, Holt, Rinehart and Winston, Inc., October, 1964, p. 1-352.

DeVito, Communication, Prentice-Hall, 1971, p. 1-232.

Flanders, Ned A., Analyzing Teaching Behavior, Addison-Wesley Publishing Co., 1970, p. 1-448.

Fuchs, Estelle, Teachers Talk, Doubleday & Company, Inc., 1969, p. 1-224.

Gage, N. L., Teacher Effectiveness and Teacher Education, Pacific Books, Publishers, 1972, p. 1-226.

Gerbner, Holsti, Krippendorff, Paisley, Stone, The Analysis of Communication Content, John Wiley & Sons, Inc., 1969, p. 1-597.

Gorman, Alfred H., Teachers & Learners, The Interactive Process of Education, Allyn & Bacon, Inc., Boston, January, 1971, p. 1-189.

Herbert, John, A System for Analyzing Lessons, Teachers College Press, Teachers College, Columbia University, New York, 1967, p. 1-131.

Hopkins, Terence K., The Exercise of Influence in Small Group, The Bedminster Press, New Jersey, 1964, p. 1-205.

Ober, Bentley, Miller, Systematic Observation of Teaching, Prentice-Hall, Inc., 1971, p. 1-236.

Periodicals

_____, Criteria for Theories of Instruction, Association of Supervising and Curriculum Development, NEA, Washington, D.C., 1968, p. 1-44.

Fischler, Abraham, S., Confrontation, The Indispensable Condition for Changing Teacher Behavior, Institute of Professional Growth, Nova University, Center for Behavioral Science, October, 1970, p. 1-22.

_____, Interaction Analysis: Selected Papers, ATE Research Bulletin, No. 10, Published by Association of Teacher Educators, a national affiliate of the National Education Association in collaboration with the Eric Clearinghouse on Teacher Education, p. 1-49.

_____, Journal of Research and Development in Education, Volume 5, Number 2, Winter, 1973, Athens, Georgia, "Paraprofessional + Career Opportunities Program = Quality Education for Children", University of Georgia, 1972, p. 1-155.

Joyce, Bruce R., Man, Media and Machines, National Association of the U. S., 1967, p. 1-28.

_____, Observational Methods in the Classroom, Beegle-Brandt, Association for Supervision and Curriculum Development, 1973, p. 1-83.

_____, Theory & Research in Teaching, Bureau of Publications, Teachers College, Columbia University, New York, 1963, p. 1-122.

APPENDIX A

MAY 6 - 1974 118

THE DUVAL COUNTY SCHOOL BOARD

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Career Opportunities Program
1741 Francis Street, Room #4
Jacksonville, FL 32209
Phone: 904-633-5860

May 2, 1974

Mr. S. O. Kaylin
Associate in Practicum
National Ed.D. Program
NOVA University
Fort Lauderdale, FL 33314

Dear Mr. Kaylin:

In a telephone conversation with you on April 18, 1974, you gave me approval to submit my Maxi II proposal. The proposal is being developed at this time and should be forwarded to you in the next two weeks.

My letter to you dated April 1, 1974 apparently was not received as you were unable to locate the letter in my personal file. Enclosed for your information is a copy of the letter.

Yours very truly,

Joseph H. Williams

Joseph H. Williams, Supervisor
Career Opportunities Program

JHW/sgc

Enclosure

Answered 5/16/74 - file

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APPENDIX B

THE DUVAL COUNTY SCHOOL BOARD

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February 21, 1974

Dr. Gordon J. Klopf, Provost
and Dean of the Faculties
Bank Street College of Education
610 West 112th Street
New York, NY 10025

Dear Gordon:

I am pleased to accept your invitation for the Jacksonville, Florida COP program to be included in your excellent project on Multiple Team Training for the 1974 fiscal year.

In view of your intent to place more emphasis upon reading skills and also because Mrs. Creveling, Mrs. Tirado, and Mrs. Kennedy are no longer working together in the same school and program, it is desirable to make two substitutions. It is requested that Mr. Jerry Gugel, who is the Coordinator of the Duval County Title I Reading Program which includes approximately forty reading teachers and sixty-five teacher aides, (mostly COP participants), replace Mrs. Creveling as a member of the Core Team.

Mary Bruce Kennedy was reassigned to Mr. Gugel's Title I Reading Program approximately fifteen months ago. Mr. Gugel should select a reading resource teacher who works closely with Mrs. Kennedy. The teacher selected would replace Mrs. Tirado.

Mr. Gugel and several of his teacher-aide teams have received training in the use of the ACE Instrument. Perhaps additional training could be provided for him, his teachers and the IHE representative prior to reporting to Bank Street for the 1974 phase.

Obviously it would be desirable to continue the project with the same participants who were trained by your project staff two years ago. However it is not feasible for us to do so and it would be in the best interest of our local COP program if this request can be granted.

If you would like for us to continue with you in the program, subject to the above changes in personnel, the Duval County COP staff will take the necessary action to insure the local commitments outlined on page 2 of your letter dated January 27, 1974.

Please let me know as soon as possible if the changes noted above are acceptable and whether or not you would like for us to continue with you in the project.

Sincerely,

Joseph H. Williams

Joseph H. Williams, Supervisor
Career Opportunities Program

JHW/sgc

APPENDIX C

THE DUVAL COUNTY SCHOOL BOARD

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1741 Francis Street, Room #4
Jacksonville, FL 32209
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TO: John Grieder, Director, Performance Based Curriculum Development

FROM: JW Joseph H. Williams, Supervisor, Career Opportunities Program

SUBJECT: REQUEST APPROVAL TO CONDUCT RESEARCH IN THE INDIVIDUALLY PACED INSTRUCTION PROGRAM, DUVAL COUNTY SCHOOLS BY NOVA UNIVERSITY PARTICIPANT

DATE: April 22, 1974

Approval is requested to conduct a series of in-service workshops with selected master teachers, teacher-paraprofessional teams and principals of ESAA Pilot schools in three-dimensional team training for professional-paraprofessional teams in Analysis of Communication in Education.

Workshop training sessions will be conducted by Joseph H. Williams, a participant and student in the Jacksonville cluster of the Nova University Ed.D. Program. Mr. Williams will be assisted by a core-team of five members who have completed a training program at Bank Street College of Education, New York as well as further team training in Jacksonville during the period of May-July 1974.

Research completed by Joseph H. Williams indicates that one of the greatest needs in Duval County schools serving low-income areas is for the improvement of student achievement in all skill areas. It is hoped that the professional-paraprofessional teams selected to participate in three dimensional team training in Analysis of Communication in Education will recognize their patterns of verbal communication so as to create a learning environment which challenges and supports productive independence in children, provides basic knowledge, and develops various skills and competencies, particularly the ability to think, to reason, to conceptualize.

The teams, upon completion, should be able to strengthen their competencies to enable the teaching staff to understand, accept, and apply leader's assistance and guidance, and also for educational leaders to improve competencies to work with instructional staff. A list of reciprocal competencies for educational leader and teaching staff is attached.

Subject to your approval of this request, I will make the necessary arrangements for the training to be conducted with Mrs. McCarty and other members of your staff.

Your consideration of this request is greatly appreciated.

JHW/sgc

Approved:

John Grieder, Director
Performance Based Curriculum Development

APPENDIX D

BANK STREET COLLEGE OF EDUCATION

610 WEST 112TH STREET
NEW YORK, N.Y. 10025
PHONE: (212) 663-7200

November 7, 1974

Mr. Joseph Williams
COP Director
Duval County School Board
1011 Gilmore Street
Jacksonville, Florida 33202

Dear Joe:

First thank you once more for your creative planning with respect to the use of the BRACE system in Jacksonville and for your gracious hospitality. That glimpse of the ocean at the end of our work together was indeed refreshing, and it was good to renew our contacts with one of our most productive teams.

The enclosures may surprise you, since you will find an alternative short form for the ACE coding. Upon my return, I decided to revise the form on the basis of the reactions of your team and the master teachers. The five minute intervals on the data sheets are completely objective and quantifiable. I have combined the MODE with a few of the major SUBSTANCE categories, which is more consistent with the organization of the long form. Since there are only 10 SUBSTANCE categories, plus "Not Codable," it should not be too difficult to do, particularly if the trainee uses the transcripts for the first coding experience.

The FLOW is separated out by itself and hence you can code all speakers simultaneously. If your subject is a particular child, you could put a cross instead of a tally mark when he or she speaks. Thus, you can see how your subject's fluency compares with that of others in the same group.

The Summary Sheet would be filled out after an hour of recorded observation of a given subject. The totals on the data sheets would give an objective basis for this analysis. It would not be based on impressions alone. Moreover the variables are arranged in relation to specific goals rather than merely being referred to as "goal-related." The variables are checked as to frequency only so as to avoid the "more than," "less than" routine which proved confusing. Moreover, I have included "Competence in Basic Skills" among the goals. I believe this will be more acceptable

to master teachers who are concerned with reading than the more subtle goals relating to child development. Moreover, since many of the variables on the Summary Sheet happen only when the occasion arises for their enactment, we do not expect them to occur most of the time. The desired frequency is indicated by the boxes. Hopefully, the use of this Summary for a series of short form data sheets will help people to graduate to the long form and to understand the rationale for the BRACE system.

I am eager to know whether these changes solve the problems that arose at our training session. I am enclosing four copies of each form with this letter so that the whole team can react to them. I am also enclosing copies of the chart relating items on the BRACE form to criteria for an effective learning-teaching situation.

I am sending under separate cover 50 copies of these new forms and 25 copies of the manual. If you need anything else, let me know.

Perhaps because of the change in the form you will need some more consultant service from Bank Street. If you would like such assistance, I'll ask Hy Wolotsky whether the budget will allow us to send Rochelle Mayer to work with your team and perhaps assist in your second Workshop.

We feel strongly that we can develop a fine demonstration of the use of BRACE in Jacksonville and we want to cooperate in every possible way.

Cordially,

Garda

Garda Bowman
Consultant on Program
Analysis

cc: Elizabeth Gilkeson
Hyman Wolotsky
Susan Ginsberg
Rochelle Mayer
Shirley McCall
Carole Rosenfeld

GB:nn
Encs.

APPENDIX E

THE DUVAL COUNTY SCHOOL BOARD

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Joseph L. Cullen

Career Opportunities Program
1741 Francis Street, Room #4
Jacksonville, FL 32209
Phone: (904) 633-5860

January 7, 1975

Mr. Jerry E. Chapman, Administrator
Educational Manpower Utilization
Florida Department of Education
Tallahassee, FL 32304

Dear Jerry:

The purpose of this letter is to provide you with the necessary information and justification for financial support from the State COP account in order that the Jacksonville COP program can complete our commitment to the Bank Street College of Education Analysis of Communication in Education project.

If you will recall Florida was selected by the National COP program to have one of our four COP projects participate in the Bank Street (ACE) project. Early in 1971 the other three Florida COP project directors and yourself elected the Jacksonville COP program as the Florida participant.

Since the beginning of the Bank Street program, the training expenses for the core team consisting of a principal, teacher, COP aide and COP project director have been borne by Bank Street. This training has included the trip to England by the principal, a three day conference-workshop conducted at Panama City in 1973 for all the Florida and Georgia COP project staffs and other invited principals and teachers.

The final phase of the project started in November 1974 when two consultants conducted a training workshop in Jacksonville for twenty master teachers from the Duval County School System. Another workshop was conducted by Dr. Rochelle Mayer (Bank Street) in Jacksonville on January 2 & 3, 1975 for twelve additional master teachers.

Training sessions are scheduled for the remainder of the 1974-75 school year for COP teacher-paraprofessional teams (schedule attached). The upgrading of the various instruments will be field tested in several schools and data collected from classroom systematic observations will be analyzed, published and sent to each of the other three COP projects in Florida.

The training to be conducted will require the expertise of one Bank Street College of Education staff member who will help direct the activities of the Jacksonville core team.

Much valuable information should result from the workshops, data collection, and analysis of data collected which will enable teachers to conduct more effective classroom instruction. This information will be made available to all Florida COP projects.

The Duval County School System will provide video tape recorders, VTR materials, other equipment and materials needed. Stipends for approximately twenty teachers used in the study will be paid from the operating budget for three Saturday workshops.

It is requested that you authorize travel allowance for Dr. Rochelle Mayer for five trips from New York to Jacksonville and return to New York and one round trip to New York from Jacksonville for Jerry Gugel (core team member and principal, John Love Elementary School).

Bank Street has paid for the workshop expenses in November 1974 and January 2 & 3, 1975. Bank Street will also provide travel allowance for four additional trips during 1975.

Approximate cost: $1,200.00

Your approval of this request will enable us to fulfill our commitment to the Bank Street project and will be valuable to all of our COP projects.

Sincerely,

Joseph H. Williams, Supervisor
Career Opportunities Program

JHW/sgc
Attachments: Roster of IPI Groups A, B & C
Schedule of Bank Street Staff Visitation
Suggested Collection Data Plan for IPI Group C
cc: Bank Street
Jerry Gugel

BANK STREET COLLEGE OF EDUCATION
WORKSHOP VISITATION SCHEDULE

DATE	BANK STREET STAFF PERSON	GROUP TO RECEIVE TRAINING
12/2,3/74	**Dr. Garda Bowman **Ms. Susan Ginsberg	10 Master Teachers Individually Paced Instruction (Group A) Workshop-Conference
1/2,3/75	**Dr. Rochelle Mayer	12 Master Teachers IPI (Group B) Workshop-Conference
1/13,14/75	**Dr. Rochelle Mayer	11 Master Teachers IPI (Group C) Workshop-Conference
1/30,31/75	**Dr. Rochelle Mayer	Data Collection IPI Teachers & Aides Ribault Junior High School (Group C)
2/13,14/75	**Dr. Rochelle Mayer	Data Collection IPI Teachers & Aides 5 - Junior & Senior High Schools (Group C)
2/28/75	**Dr. Rochelle Mayer	Workshop-Conference
3/1/75]	**Dr. Garda Bowman	20 Teachers & Aides John Love Elementary School
3/14,15/75	**Dr. Rochelle Mayer	20 Teachers & Aides John Love Elementary School
3/24,25/75	*Dr. Rochelle Mayer	Data Collection and Teacher-Master-Teacher - Paraprofessional Conference (Groups A & B)
4/10,11/75	*Dr. Rochelle Mayer	Data Collection John Love Elementary School Principal-Teacher-Paraprofessional Conference (20 Teachers)

4/24,25/75	*Dr. Rochelle Mayer	Data Collection John Love Elementary School Principal-Teacher-Paraprofessional Conference (20 Teachers)
5/8,9/75	*Dr. Rochelle Mayer	Data Collection & Teacher Conferer IPI (Groups A-B-C)
5/23,24/75	*Dr. Rochelle Mayer **Dr. Garda Bowman	Final Workshop & Conference John Love Elementary School Groups A-B-C IPI Master Teachers
6/2,3/75	***Dr. Rochelle Mayer	Final Meeting Complete Analysis of Data Prepare final written report
5/26,27/75	*Jerry Gugel	Attends conference in New York to observe various uses of data.

*State COP provides travel funds
**Bank Street provides travel funds
***Jacksonville COP provides travel funds

APPENDIX F

Bank Street College of Education

January 1975

ANALYSIS OF GOAL FULFILLMENT FOR CHILDREN
AND ADULTS BASED ON BRACE DATA

A. CHILD VARIABLES	Most of Time	Frequently	Once or Twice	Whenever possible	Not during Observation	Assessment of
GOAL #1. SELF CONFIDENCE, MOTIVATION, AUTONOMY						
1. Speaks without being called upon (Initiate in Mode)						
2. Asks questions (Ask in Mode)						
3. Expresses positive inner feelings (pf)						
4. Expresses need, desires (nd)						
5. Initiates contact with adult (47-3,5)						
6. Engages in independent activity (49-1)						
7. Selects content and timing of activity (54-6)						
8. Is highly involved in activity (63-1)						
GOAL #2. INVENTIVENESS, HIGH LEVEL COGNITION						
1. Uses imaginative, intuitive though process (1t)						
2. Combines logic and imagination (it)						
3. Low incidence of choral responses (SR-ch)						
4. Makes highly elaborated comments (HE)						
5. Extending, clarifying other's comments (ec)						
6. Selects,expressive activity, fantasy (53-2, 50/51-10) (54-6)						
7. Produces "different" Product in parallel activity (49-4)						
GOAL #3. RESPONSIVENSS TO PEERS, TO ADULTS, TO BROADER ENVIRONMENT						
1. Expresses warmth, affection in words (w)						
2. Shows interest in others as human beings (hi)						
3. Speaks to peers (to child in Flow)						
4. Uses humor, kidding (h)						
5. Accepts, encourages others' ideas (ae)						
6. Recognizes others' accomplishment (r)						
7. Selects join activity (49-5 & 54-6)						
8. Selects activity where peer communication is essential or likely (56-1 & 54-6)						
9. Selects creative writing, graphic activity, music (50/51-4, 7, 14 & 54-6)						
10. Selects social studies, science (50/51-4, 5 & 54-6)						

	Most of Time	Frequently	Once or Twice	Whenever Possible	Not during Observation	Assessment of
GOAL #4. PRODUCTIVITY - TYPE OF ACTIVITY						
1. Engages in logical thought processes (lt)						
2. Combines logic & imagination (it)						
3. Speaks clearly (vague is low) (v low)						
4. Speaks accurately (inaccurate statements low) (is low)						
5. Takes responsibility for group behavior by directing, redirecting or calm control (dp, rg & cc)						
6. Is highly involved in activity (63-1)						
7. Copes with stress situation (65-1)						
B. ADULT VARIABLES						
GOAL #1. SUPPORT OF LEARNING						
1. Accepts, clarified, extends children's ideas (al & ec)						
2. Recognizes specific accomplishments (r)						
3. Stimulates self-correction (sc)						
4. Elicits logical and/or imaginative thought (asks, lt or it)						
5. Give substantive assistance (38-2, 3)						
6. Works with child individually (49-1)						
7. Includes expressive activities in curriculum (53-2)						
GOAL #2. SUPPORT OF PERSONS						
1. Speaks to individual children (flow)						
2. Responds to children's needs, desires (respond to nd)						
3. Expresses human interest in children's comfort out-of-school life, etc. (hi)						
4. Expresses warmth, friendliness,, affection to children, group (w & 57, 58)						
5. Bases activities on children's real experience (52-1)						
6. Includes joint activities in curriculum (49-5)						
7. Indicates that peer communication is essential or likely (not prohibited) (56-i)						

	Most of Time	Frequently	Once or Twice	Whenever Possible	Not during Observation	Assessment of Goal Fulfillment
GOAL #3. SUPPORT THROUGH MANAGEMENT						
1. Redirects or guides activities to prevent conflict or meet some special need (rg)						
2. Controls disruptive behavior calmly and rationally (cc)						
3. Gives procedural assistance (38-4, 5)						
4. Plans activities jointly with children (54-3)						
5. Copes with stress situation (65-1)						

APPENDIX G

Name_____ Subject_____
(classroom teacher)

Grade Level_____ Activity_____

Date_____

QUESTIONNAIRE FOR EVALUATING
ONE-TO-ONE CONFERENCES AND VIDEO TAPINGS

I. Did you find the staff development project in which you participated useful? Did you become more aware of your own patterns of communication and teaching behavior? Did this awareness lead to changes in your teaching behavior and interactions with children?

More specifically, what were the perceived values and outcomes of the following activities?

-group training in the use of the BRACE instrument

-viewing self on video-tape

-one-to-one conferencing with Rochelle Mayer based on classroom visits and video-tapes

-analysis of communication patterns with BRACE categories; interpretation of patterns with Rochelle Mayer

APPENDIX H

BRACE: STAFF DEVELOPMENT INSTRUMENT

Accepting, Encouraging		OF LEARNING		Perfunctory ACKNOWLEDGEMENT without interest or encouragement
Extending, Clarifying				
Recognizing Specific Accomplishments				GENERALIZED OR MEANINGLESS PRAISE
Stimulating Self-Correction				CORRECTING MISINFORMATION

Showing WARMTH, AFFECTION or HUMAN INTEREST		OF PERSONS		Belitting or ego deflating Comments

GUIDING and/or REDIRECTING LEARNING ACTIVITIES		THROUGH MANAGEMENT		DIRECTING, procedural
Tone of BEHAVIOR Control: rational, non-punitive				Tone of BEHAVIOR Control: threatening, punitive

MODE / SUBSTANCE	INITIATE	ASK	RESPOND	OTHER FORMS OF COMMUNICATION
Logical and/or imaginative thought processes				
Basic information or facts				
Affective comments, internal feelings				

MISSED OPPORTUNITIES TO RESPOND TO, CLARIFY, OR EXTEND A CHILD'S THINKING (SPECIFY EXAMPLES)	

DESCRIPTION OF ACTIVITY				PROSE DESCRIPTION OF ACTIVITY
ADULT ROLE: Adult-facilitated		Adult-led		
CONTENT: Experiential-informal		Traditional academic		
CHOICE: Self-selected		Adult-planned		
MOST CHILD COMMUNICATION: Child initiated		Adult-solicited		
MOST ADULT COMMUNICATION: Addressed to Child		Addressed to group		
PEER COMMUNICATION: Likely		Unlikely		
CHILD/GROUP INVOLVEMENT: Above Average / Average		Below Average		

Observer_____ Subject: Adult_____

Child(ren)_____

Date_____ Length of Obs._____ Size of Group_____

TO WHOM / WHO	TO: CHILD	TO: GROUP	TO: ADULT	TOTALS
CHILD/ CHILDREN				
ADULT				
TOTALS				

FLOW GRID: Code All Speakers

TO WHOM / WHO	TO: CHILD	TO: GROUP	TO: ADULT	TOTALS
CHILD/ CHILDREN				
ADULT				
TOTALS				

APPENDIX I

Name_____ (Master Teacher)

School_____

Program_____

Classroom Teacher_____

Subject_____

Activity_____

Grade Level_____

Date_____

QUESTIONNAIRE FOR EVALUATING
ONE-TO-ONE CONFERENCES AND VIDEO TAPINGS

Pre-Video Tape

I. Describe the activity which was video-taped in terms of content, group size, role of teacher, etc.

II. What were the major points indentified regarding the adult's teaching behavior during your one-to-one conference with Dr. Rochelle Mayer?

III. Did you find the conference with Dr. Mayer useful? Was the application of the BRACE instrument useful? If so, how?

IV. Were additional issues raised about this video-tape when it was viewed by the other master teachers? Explain.

V. Describe the one-to-one conference you had with the classroom teacher in terms of:

a. What you did (e.g. did you show video tape and then react or react as video tape was playing or first solicited teachers own reactions, etc.)

b. What you said, what the classroom said, in terms of content (points raised) and tone (accepting vs defensive; interested vs passive or uninvolved; etc.)

c. What the out come of the conference was in terms of identifying target areas of change.

d. What you think the classroom teacher felt about the usefulness of:

1. the video-taping

2. the one-to-one conference

3. the BRACE analysis

Post-Video Tape

VI. Describe the activity which was video-taped in terms of content, group size, role of teacher, etc.

VII. What were the major patterns identified regarding adult behaviors with the BRACE system? What other aspects of the adult's teaching behavior are noteworthy?

VIII. How do these patterns compare with those identified on the first video-tape? Were there any changes in the areas identified as targets of desired change? If so, do you think the video-taping, conferencing and BRACE analysis played a role? What factors predominated in your opinion?

If desired change did not occur, then can you hypotheize why?

IX. Additional comments or suggestions regarding the use of the BRACE instrument as a staff development tool.

APPENDIX J

BRACE Analysis Master Teacher: Doris Thorton

Activity: Teacher-led class discussion on Black Boy by Richard Wright

Perhaps the most noteworthy teacher communication pattern was this teacher's high frequency of what we term "extending and clarifying". This teacher would often follow a student's response with "go-on" or "tell me more about that". In addition to these somewhat global invitations for further student input, there were the more directed-type comments to help students clarify and refine their thinking e.g., what else did his father do? We view this pattern as highly desirable and highly supportive of learning. Unlike fast-paced question-answer sessions where participation rotates rapidly and one-word answers are sufficient, the opportunity for a student to talk at some length requires that he organize his thinking and effectively communicate his thoughts to others. Children cannot be expected to become articulate if they are never given a chance to speak. I think that there was more student-talk in this class than in any of the other class sessions which were video-taped in Jacksonville.

Another noteworthy aspect of the teacher's communication was his question-asking pattern which included both comprehension-type questions (e.g., Do you remember what his mother said when she sent him out for the groceries?) and questions which required students to reason and use their imagination in interpreting the meaning of the events (e.g., What lesson do you think he learned from this?). We like to look for balance

between factual questions and those which require higher level cognitive processes such as conjecture, logical deduction, etc. I think a good balance between basic comprehension and the higher level interpretive questions was present. It seemed clear from the students' involvement and eager participation that they did in fact comprehend the material very well.

In addition to the presence of these highly desirable communication patterns, it is also important to note that there was an absence of what we feel are undesirable types of teacher response e.g., ignoring student's comments or acknowledging them in a perfunctory manner; saying anything that is demeaning to a student or threatening a student, etc.

However, there was also an absence of certain types of communication which we consider desirable. This teacher rarely responded with what we term "recognizing specific accomplishment"; saying, in effect, "very good" or "that's an excellent interpretation" etc. I do not consider this omission a very serious one since such recognition was, in a sense, implicit in the teacher's request for student's to "go on". However, this teacher may want to give some thought to the issue of how well he communicates to students what is praiseworthy. A more serious omission, at least from the segments of the discussion I viewed on video-tape, was the absence of both "human interest" type questions and questions that dealt with affect. Although students clearly identified with some aspects of the story (the laugh of recognition when the students were discussing how the mother told her son to shut his mouth

and stop asking so many questions) this teacher never asked "Did that ever happen to you" or "Did you ever wonder about that" or "How do you think he felt?" or "How would you feel if you were in his spot?" Of course, since I only saw a limited sample of this teacher's communication the absence of such questions may not be typical. At any rate, this is another area that he may want to think about in terms of his teaching, certainly the motivation to make the material meaningful and relevant to the students is obvious in this teacher's choice of books. I think it would be helpful to press this issue and help student's articulate why they reacted the way they did to certain aspects of the story.

Another characteristic of the communication patterns was the absence of peer communication. This teacher did little to foster any peer dialogue or any sense of group connectedness by having students build on and react to each other's ideas. I think this was partly because most of the questions -- even the ones requiring interpretive reasoning -- had "right" answers, and were thus directed to the teacher.

It seems to me that in discussing the human condition through literature there can be fruitful use of questions which result in differing opinions. I think the kind of thinking which is stimulated by peer arguments over substantive matters can be highly educative. For example, peer dialogue might have been engendered by asking questions such as: Do you think it was right for his mother to say she would hit him if he didn't come back with the groceries? Was it

right for him to beat up those kids? Why did he do it? Was his fear of being hit by his mother the only reason? What about his fear of being hurt by those kids?, etc. Again, this is another area that this teacher, depending on his goals and priorities, may want to cultivate. The identification of areas for potential change are not in any way intended to overshadow the overwhelming presence of highly desirable and often rare patterns of communication. This teacher has exhibited many strengths on which to build new skills.

Summary of Notes based on Conference with Mr. G's Master Teacher

Patterns of Communication	Relation to Goals
High frequency of responding with acceptance and recognizing specific accomplishments.	Positive index to support of learning.
Balance of giving and asking for information and giving and asking for logical thought.	Positive index to stimulating high level cognition.
Frequency of correcting misinformation to exclusion of stimulating self-correction.	Negative index to support of learning.
Curriculum of words from standardized spelling lists; workbook exercises on parts of speech e.g. identifying adjectives, adverbs.	Negative index to high involvement. Curriculum not relevant to students' experiences.

Additional Comments and Suggestions for Change

Works rapidly and doesn't really give students a chance to ask questions (maybe was nervous because of video). Must reevaluate strategy of incorrect responses or lack of knowledge -- does not stimulate thinking but supplies correct responses. Should consider alternate curriculum strategies to standard workbooks. Perhaps analyze parts of speech and vocabulary words from students' own essays.

Summary of Notes based on Conference with Mrs. I's Master Teacher

Patterns of Communication	Relation to Goals
Almost all "presenting" thought provoking material -- lecture format.	No relation to child variables - developing autonomy, motivation, self-activated learning.

Other Comments

Poor technical quality -- require new video.

Summary of Notes based on Conference with Mr. L's Master Teacher

Patterns of Communication	Relation to Goals
High ratio of giving and eliciting logical thought versus simple recall of information.	Goal of High Level Cognition emphasis on thinking and figuring out, rather than memorizing formulas.
Frequently give specific praise ("very good") and endorses students responses by repeating them.	Goal of Support of Learning.
Uses problems that were relevant to children's experiences.	Goal of motivation, involvement.
Student-initiated questions.	Goal of autonomy and support of learning.
Absence of stimulating self-correction. Instead supplied desired information.	Is this the best strategy for support of learning?

Other Comments

Skillful management
pacing-timing is excellent
students highly involved

Suggested Areas for Self-Analysis

Examination of question - answering strategy. Supplies requested information without stimulating student to think through problem for himself.

Summary of Notes based on Conference with Mrs. M's Master Teacher

Patterns of Communication	Relation to Goals
High ratio of giving and asking for information for logical thought.	Negative index to stimulating high level cognition.
High frequency of support of learning e.g. responding with acceptance, recognition, and stimulation of self correction.	Positive index to stimulating learning. Stimulation of self-correction is especially noteworthy here.
High ratio of adult to child communication.	Negative index to child variables of developing self-activated learning, high involvement.
Math curriculum not based on students' experience e.g. real problem solving situations involving computation.	Negative index to high involvement and motivation.

Additional Comments and Suggestions for Change in Teaching Behavior

Nice rapport with students; works at good pace. May want to consider ways in which math curriculum can be made more relevant and ways in which students can take a more active role in their own learning.

Videotaping of 4th Grade IPI Class - Hyde Park Elementary
Analysis of Communication Patterns

January 13, 1975

Comments on Patterns

I. Responds with accepting, encouraging to children.

The teacher frequently "accepted" the child's answer by repeating it as if saying "yes, that's a good word". She also occasionally said "very good" after a child offered an answer. This pattern of "accepting" is one of this teacher's strengths.

II. Asking "thinking" questions which offer an opportunity for the child to use his imagination and come up with his own ideas.

All of her synonym questions e.g., "Can you think of another word for happy?" are of this type. Again, this is a plus for the teacher.

III. Addresses children individually rather than asking questions to the group.

Most of the teacher's questions were addressed to a specific child and often the child's name was used (Jim -- instead of saying "you next"). This again is a plus.

Interpretation

The three dominant communication patterns which emerge are all positive. However, one can raise questions about what did not occur. For example, there were no instances of peer communication, of children making suggestions to each other. Instead all communication was from teacher to child and child to teacher. This, of course, is partly due to the nature of the activity. So, the important question to ask is if there are other activities during the day which provide opportunities for peer interaction, and for developing children's social competence.

Personal Observations & Comments of Mr. Joe Williams and Mr. Tom Doyle Concerning the Uses of the Aide by the Teacher

Personal Observations - Tom Doyle, COP Core Team Member
Joe Williams, Nova Practitioner

The contrasting qualities of the voices of the teacher and paraprofessional requires some comment.

On one hand, the teacher's voice seemed too loud for the number of children involved in the activity; while on the other, the paraprofessional's was almost too soft. Both need to modulate their voices to a level best suited to the needs of the children.

Both the teacher and the paraprofessional were too involved with the physical presence of the IPI plan book; one held it open on her lap, while the other had it open on the table before her. Its very bulk is distracting, and constantly looking into it weakens the spontaneity of the presentation.

While the teacher seemed to try to reach all of the children in the group, there was a minor degree of ignoring one boy. The boy, who seemed to wave as if he had the answer for every question, did not have it when he was called upon. He seemed to need a great deal of attention, and while it would be impossible to center on this child alone, it did seem as if some opportunities for corrective work with this student were overlooked:

"------, you need to think more about it"

or

"------, while I'm asking Moses for the next synonym, you think about one for ----."

The paraprofessional seemed to have fairly good rapport with the group with which she was working. However, in the presence of a film crew and other observers, she seemed to be subdued in her presentation. In spite of this, the children seemed to respond well and gave the impression of a satisfactory learning situation. There was a feeling also, that this group had good peer interaction, and indicated support for one another in many non-verbal attitudes.

The same concern can be expressed with respect to the fact that this was a teacher-directed and teacher-planned activity. This is fine, but the total curriculum should be balanced with self-selected and self-directed activities as well, so as to promote the child's autonomy, motivation, and self-activated learning.

Examples of Communication Techniques

Presenting Information (Below Grid)

-- Introductory remarks e.g. "Today we'll be working on synonyms, etc."
-- "We're going to work on synonyms in context ---"

Asking Information to Group/Child

-- What is a synonym?
-- Moses, did you have one for cute?

High Level Cognition

-- "Can you think of another word for happy?"
-- "Can you think of another?"
-- "Alright, Darren, can you think of another?"
-- "Do you think a person who is handsome is cute? Could be!"

Support

-- "O.K." (accepting)
-- "the same or nearly the same" (extending, clarifying child's definition of synonym)
happens often -- "joyful" (repeat child's answer) accepting
-- "not bad - do you think" (stimulating self-correction)
-- very good (recognizing specific accomplishment)
-- "whisper, yes, those are very good" (recognizing specific accomplishment)

Routine

-- "that's an antonym isn't it?" (correcting information)

APPENDIX K

BANK STREET COLLEGE OF EDUCATION
610 WEST 112th STREET
NEW YORK 10025

BRACE

Side 1 (ACE)
Communication Categories
Developed by Garda W. Bowman

SPEAKER (Subject): A Particular child ☐ (1) A child in rotation ☐ (2) Teacher ☐ (3) Para ☐ (4) Other ☐ (5) (Code ONE Speaker at time) [1]

SUBSTANCE / FLOW / MODE			TO: CHILD (C)			TO: GROUP (G)			TO: ADULT (A)			
			INITIATE (I) Card 1	ASK (A) Card 2	RESPOND (R) Card 3	INITIATE (I) Card 4	ASK (A) Card 5	RESPOND (R) Card 6	INITIATE (I) Card 7	ASK (A) Card 8	RESPOND (R) Card 9	
SUPPORTIVE	OF LEARNING	ACCEPTING, ENCOURAGING (ae)										[2/3]
		EXTENDING CLARIFYING (ec)										[4/5]
		RECOGNIZING SPECIFIC ACCOMPLISHMENT (r)										[6/7]
		STIMULATING SELF-CORRECTION (sc)										[8/9]
	OF PERSON	Showing WARMTH to others, AFFECTION (w)										[10/11]
		Showing HUMAN INTEREST in other's comfort, out-of-school life, etc. (hi)										[12/13]
	THROUGH MGMT.	REDIRECTING and/or GUIDING ACTIVITIES (rg)										[14/15]
		CALM, RATIONAL CONTROL of behavior (cc)										[16/17]
COGNITIVE		LOGICAL THOUGHT processes (lt)										[18/19]
		IMAGINATIVE THOUGHT processes (it)										[20/21]
		LOGIC & IMAGINATION COMBINED (li)										[22/23]
		THINKING with overtones of FEELING (tf)										[24/25]
		INFORMATION, FACTS, simple recall or recognition of facts (i)										[26/27]
AFFECTIVE		POSITIVE FEELINGS (Internal) (pf)										[28/29]
		NEGATIVE FEELINGS (Internal) (nf)										[30/31]
		HUMOR, Kidding (h)										[32/33]
		NEEDS,										

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COGNITIVE	IMAGINATIVE THOUGHT processes (it)											[20/21]
	LOGIC & IMAGINATION COMBINED (li)											[22/23]
	THINKING with overtones of FEELING (tf)											[24/25]
	INFORMATION, FACTS, simple recall or recognition of facts (i)											[26/27]
AFFECTIVE	POSITIVE FEELINGS (Internal) (pf)											[28/29]
	NEGATIVE FEELINGS (Internal) (nf)											[30/31]
	HUMOR, Kidding (h)											[32/33]
	NEEDS, DESIRES (nd)											[34/35]
ROUTINE — MANAGEMENT	DIRECTING, PROCEDURAL (dp)											[36/37]
	PERMISSION (p)											[38/39]
ROUTINE — FEEDBACK	CORRECTING INFORMATION (c)											[40/41]
	GENERALIZED PRAISE (gp)											[42/43]
	ACKNOWLEDGEMENT without interest or encouragement (ak)											[44/45]
ROUTINE — OTHER	Indicating OWN LACK OF KNOWLEDGE/SKILL (lk)											[46/47]
	SOCIAL AMENITIES (sa)											[48/49]
	VAGUE comments (v)											[50/51]
HARMFUL	DEMEANING comments and/or HOSTILITY (dc)											[52/53]
	HARSH, PUNITIVE CONTROL of BEHAVIOR (hc)											[54/55]

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Punch items in this frame on the 9th Card only

Single Code: Make entry below ONLY

PRESENTING INFORMATION (Pi) [56/57]
PRESENTING THOUGHT PROVOKING MATERIAL (Pt) [58/59]
READING ALOUD (1 PERSON) TO AUDIENCE (Ra-1) [60/61]
READING ALOUD TO SELF (Ra-s) [62/63]
NOT CODABLE (NC) [64/65]

Double Code: Make entry below AND in other appropriate place

SPEAKING OR READING IN CHORUS (SR-ch) [66/67]
SPEAKING TO SELF (S-s) [68/69]
INACCURATE STATEMENTS (IS) [70/71]
ONE WORD, MINIMAL COMMENT (OW) [72/73]
HIGHLY ELABORATED COMMENT (HE) [74/75]

Type of Adult present: Teach ☐ (1) Para ☐ (2) Both ☐ (3) Other ☐ (4) None ☐ (5) [76]

Position of Observation in Sequence ( ) [77/78]

Card 1 2 3 4 5 6 7 8 9 [79/80] (For key punch operator only)

(TURN PAGE AND CODE FOR SAME SITUATION)

NK STREET COLLEGE OF EDUCATION
WEST 112th STREET
W YORK 10025

BRACE

Side 2 (BORIS
Setting and B
Developed by

Duration of Observation: 1′ ☐ (1) 1½′ ☐ (2) 2′ ☐ (3) 2½′ ☐ (4) 3′ ☐ (5) 3½ ☐ (6) 4′ ☐ (7) 4½′ ☐ (8) 5′ ☐

Time Observation Concluded a.m. (1) p.m. (2) [36] **Cumulative Time**

SIZE OF GROUP OBSERVED: 1 child ☐ (1) 2 ☐ (2) 3 ☐ (3) 4-6 ☐ (4) 7-12 ☐ (5) 13-20 ☐ (6) Whole Class ☐ (7) [3

ADULT ROLE

Check When Subject Is An Adult:	Role of Subject [38] Re: Major Contact	Role of Subject Re: Minor Contacts	Role of Other Adult [Re: Subject's Major Co
Directs Activity Continuously	☐ (1)	1 2 3 4 5 6 7 8 9 [39]	☐ (1)
Gives Substantive Assistance: Contact Initiated By Adult	☐ (2)	1 2 3 4 5 6 7 8 9 [40]	☐ (2)
Gives Substantive Assistance: Contact Initiated By Child	☐ (3)	1 2 3 4 5 6 7 8 9 [41]	☐ (3)
Gives Procedural Assistance Only: Contact Initiated By Adult	☐ (4)	1 2 3 4 5 6 7 8 9 [42]	☐ (4)
Gives Procedural Assistance Only: Contact Initiated By Child	☐ (5)	1 2 3 4 5 6 7 8 9 [43]	☐ (5)
Is Basically A Participant Not A Leader	☐ (6)	1 2 3 4 5 6 7 8 9 [44]	☐ (6)
Observes Activity But Does Not Participate	☐ (7)	1 2 3 4 5 6 7 8 9 [45]	☐ (7)
Is Basically Unrelated To Activity	☐ (8)		☐ (8)

Check When Subject Is A Child:	Role of Teacher [47]	Role of Paraprofessional [48]
Directs Activity Continuously	☐ (1)	☐ (1)
Gives Substantive Assistance: Contact Initiated By Adult	☐ (2)	☐ (2)
Gives Substantive Assistance: Contact Initiated By Child	☐ (3)	☐ (3)
Gives Procedural Assistance Only: Contact Initiated By Adult	☐ (4)	☐ (4)
Gives Procedural Assistance Only: Contact Initiated By Child	☐ (5)	☐ (5)
Is Basically A Participant Not A Leader	☐ (6)	☐ (6)
Observes Activity But Does Not Participate	☐ (7)	☐ (7)
Is Basically Unrelated To Activity	☐ (8)	☐ (8)

CHILD ROLE IN SETTINGS

Form of Activity: [49]
- Independent Activity (one child working alone) ☐ (1)
- Adult/One Child Activity ☐ (2)
- Parallel Activity: (children working individually in close proximity)
  - with UNIFORM products ☐ (3)
  - with DIFFERENT products ☐ (4)
- Joint Activity (children working cooperatively) ☐ (5)
- Collective Activity (group with single focus) ☐ (6)

Content of Activity: [50/51]
- Math ☐ (01)
- Language Arts ☐ (02)
- Reading ☐ (03)
- Creative Writing ☐ (04)
- Social Studies ☐ (05)
- Science ☐ (06)
- Graphic ☐ (07)
- Manipulative ☐ (08)
- Motor ☐ (09)
- Fantasy ☐ (10)
- Discussion ☐ (11)
- Reading to Children ☐ (12)
- Card or Board Games ☐ (13)
- Music ☐ (14)
- Integrated ☐ (15)
- Other ☐ (16)

Base of Activity: [52]
- Based on Child/Children's Real Experience ☐ (1)
- Not Based on Child/Children's Real Experience ☐ (2)

Nature of Activity: [53]
- Abstract Activity
- Manipulative Use of Material:
  - Expressive Activity
  - Structured Activity

Choice of Activity: [54]
- Adult Planned As To Content and Timing:
  - with **NO** other options
  - with other options
- Planned Jointly By Child/Children with Adult
- Self Selected As To Content Only
- Self Selected As To Timing Only
- Self Selected As To Both Content And Timing
- Not Enough Evidence

Child Communication to Adult: [55]
- Mostly Child Initiated
- Mostly Adult Solicited
- Frequently Choral
- Basically Listening
- None (adult present)
- None (no adult present)

Peer Communication: [56]
- Essential or Likely
- Unlikely But Not Prohibited
- Inappropriate
- Prohibited
- Impossible (no other child in close proximity)

NONVERBAL BEHAVIOR RATINGS (check all that apply)

	To Child	To Group	To Adult
Subject Shows Friendliness, Affection, Support	☐ [57]	☐ [58]	☐ [59]
Subject Shows Hostility, Anger	☐ [60]	☐ [61]	☐ [62]

CHILD INVOLVEMENT IN ACTIVITY [6
- High Attention Or Involvement In Activity
- Mixture Or Moderate Involvement In Activity
- Low Attention Or Involvement In Activity

BEHAVIOR RATINGS (check and discuss all that apply in the boxes below)

Subject misses opportunity to respond to, clarify, or extend a child's thinking ☐ [64]	Subject copes with stress situation ☐ (1) [65]	DESCRIPTION OF ACTIVITY [68/76]

Is Basically A Participant Not A Leader	☐ (6)	1 2 3 4 5 6 7 8 9	☐ (6)
Observes Activity But Does Not Participate	☐ (7)	1 2 3 4 5 6 7 8 9 [45]	☐ (7)
Is Basically Unrelated To Activity	☐ (8)		☐ (8)

Check When Subject Is A Child:	Role of Teacher [47]	Role of Paraprofessional [48]
Directs Activity Continuously	☐ (1)	☐ (1)
Gives Substantive Assistance: Contact Initiated By Adult	☐ (2)	☐ (2)
Gives Substantive Assistance: Contact Initiated By Child	☐ (3)	☐ (3)
Gives Procedural Assistance Only: Contact Initiated By Adult	☐ (4)	☐ (4)
Gives Procedural Assistance Only: Contact Initiated By Child	☐ (5)	☐ (5)
Is Basically A Participant Not A Leader	☐ (6)	☐ (6)
Observes Activity But Does Not Participate	☐ (7)	☐ (7)
Is Basically Unrelated To Activity	☐ (8)	☐ (8)

CHILD ROLE IN SETTINGS

Form of Activity: [49]

Independent Activity (one child working alone)	☐ (1)
Adult/One Child Activity	☐ (2)
Parallel Activity: (children working individually in close proximity)	
with UNIFORM products	☐ (3)
with DIFFERENT products	☐ (4)
Joint Activity (children working cooperatively)	☐ (5)
Collective Activity (group with single focus)	☐ (6)

Content of Activity: [50/51]

Math	☐ (01)
Language Arts	☐ (02)
Reading	☐ (03)
Creative Writing	☐ (04)
Social Studies	☐ (05)
Science	☐ (06)
Graphic	☐ (07)
Manipulative	☐ (08)
Motor	☐ (09)
Fantasy	☐ (10)
Discussion	☐ (11)
Reading to Children	☐ (12)
Card or Board Games	☐ (13)
Music	☐ (14)
Integrated	☐ (15)
Other	☐ (16)

Base of Activity: [52]

Based on Child/Children's Real Experience	☐ (1)
Not Based on Child/Children's Real Experience	☐ (2)

Nature of Activity: [53]

Abstract Activity
Manipulative Use of Material:
Expressive Activity
Structured Activity

Choice of Activity: [54]

Adult Planned As To Content and Timing:
with **NO** other options
with other options
Planned Jointly By Child/Children with Adult
Self Selected As To Content Only
Self Selected As To Timing Only
Self Selected As To Both Content And Timing
Not Enough Evidence

Child Communication to Adult: [55]

Mostly Child Initiated
Mostly Adult Solicited
Frequently Choral
Basically Listening
None (adult present)
None (no adult present)

Peer Communication: [56]

Essential or Likely
Unlikely But Not Prohibited
Inappropriate
Prohibited
Impossible (no other child in close proximity)

NONVERBAL BEHAVIOR RATINGS (check all that apply)

	To Child	To Group	To Adult
Subject Shows Friendliness, Affection, Support	☐ [57]	☐ [58]	☐ [59]
Subject Shows Hostility, Anger	☐ [60]	☐ [61]	☐ [62]

CHILD INVOLVEMENT IN ACTIVITY [63]

High Attention Or Involvement In Activity
Mixture Or Moderate Involvement In Activity
Low Attention Or Involvement In Activity

BEHAVIOR RATINGS (check and discuss all that apply in the boxes below)

Subject misses opportunity to respond to, clarify, or extend a child's thinking ☐ [64]	Subject copes with stress situation ☐ (1) [65] Subject fails to cope with stress situation .. ☐ (2)	DESCRIPTION OF ACTIVITY [68/76]
Subject acts in way which contradicts own words ☐ [66]	Subject disrupts ongoing activity ☐ [67]	

Position Of Observation In Sequence ( ) [77/78] Card 10

APPENDIX L

Individually Paced Instruction

ESAA BASIC PROJECT # 4951
HARRIETT A. OGILVIE, SUPERVISOR
1741 Francis Street, Room 11
Jacksonville, Florida 32209
Phone 633-6030

ELEMENTARY SCHOOLS 1974 - 1975

(Group A) COORDINATOR - ANNE MC CARTY - Room 7

School #	Name	Phone #	Principal	Master Teacher
19	Ruth N. Upson	389-3253	Janice Brown	Frances Crews
82	Love Grove	724-8351	Esther McLaughlen	Morag Kaufman
85	Lake Lucina	744-6777	Elaine Davenport	Al Grasso
209	Holiday Hill	725-5211	Mildred Marshall	Shirley Jones
215	Justina Road	744-1155	Thelma Ritter	Betty Smith
218	San Mateo	757-4766	Alice Thorburn	Mary W. Floyd
228	Merrill Road	744-4122	Barnell Richardson	Mabel Codding
233	Lone Star	725-0411	Walter Middlekauff	Clara Johnson
235	Ft. Caroline	744-2566	Ennis Woodley	Louise Fulgham
243	Gregory Drive	771-7455	Raymond Williams	Lucy Livingston

(Group B) COORDINATOR - HORTENSE BREWINGTON - Room 7

48	Thomas Jefferson	781-5566	Irving Huffingham	Mildred Goldman
59	Garden City	764-6900	Edwin Brown	Margaret Mathis
76	Southside Estates	724-1212	Fazil Dean	Elizabeth Scudder
77	Hyde Park	388-1982	Mack Barnett	Lucille Wade
97	Cedar Hills	771-0606	Helen Torbert	Annie N. Smith
99	Highlands	751-0323	Dr. Frank Taylor	Evelyn Wells
203	South San Jose	733-0922	Marie Patterson	Mell Stuart
210	Oak Hill	771-5959	Cecil Allison	Marty Collins
229	Jacksonville Heights	771-8011	Jane Patterson	Oregon Lybass

ESAA BASIC PROJECT # 4951
HARRIETT A. OGILVIE, SUPERVISOR
1741 Francis Street, Room 11
Jacksonville, Florida 32209
Phone 633-6030

SECONDARY SCHOOLS 1974 - 1975

(Group C) COORDINATOR - VERA DAVIS - Room 7

School # Name	Principal	Master Teacher	Subject
92 Paxon Junior 786-2320	Ralph W. Patterson	Annette Prime	Mathematics
		Anne Berg	Reading
96 Ribault Senior 764-0546	Alvin G. White	Robert Lentz	Mathematics
		Helen McAfee	Reading
153 Stanton Senior 354-9015	Ben Durham, Jr.	Anthony LaBello	Mathematics
		Lucy Archer	Reading
155 Northwestern Jr. 765-3951	Edwin H. Lawson	Rose Powers	Mathematics
		Doris Thornton	Reading
212 Ribault, Jr. 764-2426	Nathaniel Davis	Vivian Byrd	Mathematics
		Helen V. Peska	Reading
Holy Rosary 765-6522	Sister Mary Elmer	Christine Robinson	Mathematics and Reading
Bishop Kenney 398-7545	Mr. Edward Bristoe	Christine Robinson	Mathematics and Reading

ESAA PILOT SCHOOLS

School #23-Norwood Elementary 764-4580, Shuler P. Cox,Principal-Doretha Haynes-Master Teach

School #70-North Shore Ele. 768-1100, Michael Halperin,Principal-Anne Holland-Master Teacher

School #91-Forest Hills Elem. 765-3301, Edna Bell, Principal- Janet Twitty - Master Teacher

School #220-Harbor View Elem. 768-8239, Dr. Floyd Baker,Principal-Flora Gore - Master Teache

St. Pius Catholic School 354-2613 Sister Catherine, Principal
1470 W. 13th St.
Jacksonville, Fla. 32209 Kay Kelly - Master Teacher

8/20/74

APPENDIX M

J. W. Williams' Copy

TO: Master Teachers and Principals

FROM: Vera Davis, ESAA Basic Skills

SUBJECT: BRACE Inservice

DATE: March 27, 1975

Please observe the schedule below carefully. The schedule involves tasks which must be completed before the April 11 session with Dr. Mayer:

Master teachers in Reading will meet on Monday, April 7 at 9 A. M. at New Stanton. We will meet for one hour in the new ESAA office near the guidance suite. At 10 A. M. until noon the BRACE tapes of each classroom will be studied. Joe Williams will be there to assist with this part of the session.

Master teachers in Math will meet at 1:00 P. M. on the same day (Monday, April 7) to view their tapes.

The purpose of the previewing is to prepare for and conduct conferences as planned with the classroom teachers whose classes have been observed.

The schedule for the leading up to April 7 is as follows:

Monday, April 7 - All Master teachers preview the BRACE tapes.
Reading - 10-11:30
Math - 1-2:30

Tuesday, April 8 - (Tony LaBello, operator)
Morning Video conferences with M/T and C/T at Northwestern.

Afternoon Video conferences with M/T and C/T at Stanton.

Wednesday, April 9 - (Williams, operator)
Morning Video conferences with
M/T and C/T at Paxon Jr.

Afternoon Video conferences with
M/T and C/T at Holy Rosary.

Thursday, April 10 - (Lentz, operator)
Morning video conferences with
M/T and C/T at Ribault Jr.

Afternoon Video conferences with
M/T and C/T at Ribault Sr.

Friday, April 11 - Meeting with Dr. Rochelle Mayer
at Darnell-Cookman 1:00-2:30 P.M.

If adjustments need to be made in the schedule we will do this on April 7 at Stanton.

Sincerely,

Vera Davis

Vera Davis

633-6030
633-6075 (Extension #7 in room 7 at Yvonne's desk)
354-0750 at home

APPENDIX N

TO: The Duval County School Board

VIA: John T. Gunning, Superintendent of Schools

FROM: Donald W. Johnson, Associate Superintendent, Curriculum

SUBJECT: PAYMENT OF STIPENDS

DATE: January 20, 1975

RECOMMENDATION:

That the Duval County School Board authorize the expenditure of Professional Development funds not to exceed $990.00 for the payment of stipends to not more than 20 elementary certificated personnel from John Love Elementary School and 2 Title I teachers who will attend three Saturday workshop sessions on learning to use Brace, an Instrument for Systematic Observation of Verbal Communication and Behavior in Education Settings. The Workshops will be held during the second semester of the 1974-75 school year.

EXPLANATION:

The workshops are designed to train classroom teachers to use the Brace instrument which provides quantitative data on what is observable during a specified time span -- in effect, a "photograph" of the classroom. The workshop will result in the interpretation of the findings and their implications as they relate to educational goals and preferred teaching practices, the impact on children's learning, and the teachers role in the classroom as it pertains to paraprofessionals.

Recommended by:

John T. Gunning
Superintendent of Schools

Requested by:

M. S. A. Greek, Director
Curriculum Services

Approved by:

Donald W. Johnson, Associate
Superintendent, Curriculum

APPENDIX O

VIDEOTAPE TRANSCRIBING SCHEDULE

EVENT		NUMBER OF FEET
1.	Introduction	
	23 - 272	249
2.	Explanations	
	280 - 391	111
3.	Panel	
	632 - 836	204
	Total	564
4.	Training Session #1 - John Love	
	45 - 215	170
	250 - 316	66
	411 - 428	17
	485 - 505	20
	615 - 650	35
	695 - 700	5
	745 - 755	10
	975 - 955	10
	Total	333
5.	Training Session #2 - John Love	
	16 - 50	34
	200 - 215	15
	250 - 265	15
	380 - 392	12
	416 - 425	9
	490 - 505	15

5. Training Session #2 - John Love (continued)

830 - 350		20
867 - 878		11
	Total	131

6. Pre Video Classroom Tapings - Ribault Junior

Dane

22 - 40		18
78 - 90		12
107 - 120		13
140 - 155		15
250 - 260		10
300 - 315		15
330 - 388		8
	Total	91

Wall

432 - 445		13
495 - 505		10
531 - 536		5
	Total	28

7. Pre Video - John Love

Carr

5 - 35		30
70 - 80		10
180 - 188		8
	Total	48

7. Pre Video - John Love (continued)

O'Brien

260 - 285		15
305 - 320		15
365 - 375		10
	Total	40

Mankin

405 - 420		15
445 - 456		11
490 - 505		10
	Total	36

Meeks

610 - 640		30
680 - 700		20
725 - 745		20
	Total	70

8. One-to-One Conference - Dr. Mayer and Debbie Carr

840 - 945		105
	Total	105

9. Group conference and feedback session with Vera Davis and master teachers following their one-to-one conference.

12 - 100	88
145 - 180	35
208 - 230	22
255 - 270	15
292 - 300	8

9. Group conference and feedback session with Vera Davis and master teachers following their one-to-one conference. (continued)

328 - 338	10
365 - 390	25
427 - 450	23
518 - 530	12
550 - 570	20
635 - 645	10
685 - 700	15
760 - 770	10
828 - 838	10
853 - 860	7
Total	310

10. Post Videotapings - Ribault Junior

Dane

25 - 35	10
55 - 72	17
110 - 140	30
154 - 171	17
180 - 190	10
205 - 215	10
260 - 280	20
Total	114

Wall

320 - 330	10
340 - 345	5
360 - 375	15

10. Post Videotapings - Ribault Junior Wall (continued)

389 - 400		1
425 - 435		10
520 - 540		20
565 - 575		10
580 - 585		5
	Total	76

11. Post Videotapes - John Love

Mankin

63 - 75		12
80 - 85		5
122 - 145		23
	Total	40

Carr

279 - 285		6
295 - 308		13
332 - 338		6
354 - 358		4
382 - 402		20
	Total	49

12. Post Videotapes - John Love O'Brien

59 - 70	11
82 - 100	12
108 - 120	12

12. Post Videotapes - John Love

O'Brien (continued)

170 - 180		10
203 - 220		17
240 - 260		20
	Total	82

Meeks

505 - 525		20
540 - 550		10
	Total	30

GRAND TOTAL FOOTAGE 2,147

APPENDIX P

THE DUVAL COUNTY SCHOOL BOARD

ADMINISTRATION BUILDING
1741 Frances Street, Jacksonville, Florida 32209

JOHN T. GUNNING
SUPERINTENDENT OF SCHOOLS

BOARD MEMBERS

William E. Carter, Chairman
Wendell P. Holmes, Jr., Vice-Chairman
Hugh Schulman
Mrs. Gene Miller
James S. Hornsby
William S. Mathias, Jr.
Joseph L. Cullen

May 9, 1975

S. O. Kaylin, Asso. in Practicums and
Case Development
Nova University
College Ave.
Fort Lauderdale, Florida 33314

Dear Dr. Kaylin:

As director of curriculum services in Duval County, I have been requested by Mr. Joseph H. Williams, a Nova University participant, to give an outside evaluation of his final thesis.

Mr. Williams showed me the preliminary proposal for his project, and kept me informed of the step-by-step developments that occured as he proceeded with the organization and execution of his work as well as the final collection of data.

I have reviewed the completed project and I am pleased to report that I am deeply impressed by the positive results of this study. From the collected data, as well as the enthusiastic responses from the teachers involved, I am willing to recommend that a staff development program along these lines be continued throughout the system. I feel there exists a definite need for it at the present time.

I believe that Nova has cause to be proud of having Joseph Williams in the list of its graduates.

Yours very truly,

M. S. J. Greek, Director
Curriculum Services

MSJG/gj

THE DUVAL COUNTY SCHOOL BOARD

ADMINISTRATION BUILDING

1325 SAN MARCO BOULEVARD, JACKSONVILLE, FLORIDA 32207

JOHN T. GUNNING
SUPERINTENDENT OF SCHOOLS

BOARD MEMBERS

William E. Carter, Chairman
Wendell P. Holmes, Jr., Vice-Chairman
Hugh Schulman
Mrs. Gene Miller
James S. Hornsby
William S. Mathias, Jr.
Joseph L. Cullen

May 9, 1975

Mr. Sam O. Kaylin
Associate in Practicum
and Case Studies
National Ed. D. Program
Nova University
Fort Lauderdale, FL 33314

Dear Mr. Kaylin:

I have just completed a final review of a study completed by one of your Nova University participants, Mr. Joseph H. Williams.

Mr. Williams requested me to serve as one of his evaluators at the inception of his project, since many of the schools involved in the study are under my jurisdiction.

From the field, I have received the highest praise for Mr. Williams' planning and his work toward making his study meaningful to the participants.

A study of the data collected and the conclusions reached by your candidate indicates that his study represents a viable base for future staff development along the same lines. The need exists, and in my opinion, Mr. Williams' work has shown positive indications of one method to meet it.

Very truly yours,

John A. Geilen
General Director, Curriculum

JAG/mvb

BANK STREET COLLEGE OF EDUCATION
610 WEST 112TH STREET
NEW YORK, N.Y. 10025
PHONE: (212) 663-7200

May 9, 1975

Mr. Sam O. Kaylin
Associate in Practicum
and Case Studies
National Ed. D. Program
Nova University
Fort Lauderdale, FL 33314

Dear Mr. Kaylin:

As program analyst and consultant at Bank Street College of Education, I have been requested by Mr. Joseph H. Williams, a Nova participant, to render an evaluation of his Maxi II Practicum.

I have closely observed the entire project as a consultant and analyst from the initial development through the completion of the final analysis of data collected.

I have evaluated the completed practicum report and I am pleased to state that, in my opinion, the results are extremely significant.

Mr. Williams should be commended for his enthusiasm and organizational ability in the execution of his Maxi II Practicum.

Sincerely yours,

Dr. Rochelle Mayer

Dr. Rochelle Mayer
Program Analyst Associate
Bank Street College of Education